Sowing New Ideas: An investigation of anthropology's contribution to rural development in S.E. Sri Lanka

Marzano, Mariella

Sowing New Ideas:

An Investigation of Anthropology's Contribution to Rural Development in S.E. Sri Lanka

Mariella Marzano
Department of Anthropology
University of Durham

Submitted in fulfilment for the requirements of the degree of PhD

2002

Mariella Marzano

Abstract

Sowing New Ideas: An Investigation of Anthropology's Contribution to Rural Development in S.E. Sri Lanka

This thesis is a study of rural development resulting from ethnographic research carried out in the villages of Mediriya, Therrapahuwa and Walamatiara in Moneragala, Sri Lanka. As rural villages are being drawn into increasingly complex relations governed by forces of globalisation, this study develops an understanding of the significance of these interactions within the context of development. In Sri Lanka, current (worldwide) concerns for 'sustainable' development based on 'participation' in order to alleviate 'poverty' and 'empower' local people, must be examined against a historical backdrop in order to appreciate the significance of rural intervention today. I examine issues of knowledge and power emphasising how a variety of stakeholders negotiate, manipulate and form relationships in order to gain access to resources.

This thesis tackles development issues on multiple levels. As part of a DFID (Department for International Development) funded natural resources project, focussing on the high density intercropping of banana with rubber, my role was to provide an in-depth study of livelihood strategies and factors influencing farmer decision-making within home gardens and smallholdings. I reflect on the advantages of Indigenous Knowledge Research, which provides a greater insight into how local people identify and tackle problems than previous 'top-down' efforts. However, the fine line between involving local people in development and 'extraction' are also highlighted. My experiences of working within a multidisciplinary team prompted me to reflect on the whole context surrounding the research process and consider the role of anthropology in development.

It is argued here that while the involvement of anthropologists in development is not without its dilemmas, anthropology can usefully contribute using a holistic approach to examine the *processes* of development, placing natural resources research within a wider social and political context and highlighting the difficulties involved in trying to understand something about Others.

Acknowledgements

I am indebted to many people who helped me during my fieldwork and after my return to Durham. I owe special thanks to my supervisor Professor Paul Sillitoe for his continuous support and encouragement. I also extend my heart-felt gratitude to the people of Mediriya, Therrapahuwa and Walamatiara for their friendship, patience and generosity. I am especially indebted to Dr Attupattu, Mr Senananyake and Nireka for their practical support, Bandara Menike and Kusumu for their wonderful company, Jaya for always making me laugh and Chandra and *achchi* for their kind hospitality, putting up with my menagerie of stray 'pets' and for always making sure I never went hungry, plus many others for helping with my research.

Many thanks are also due to Sunil, Lakshman, Wasantha, Sunethra, Dharamasiri and Clare in Sri Lanka for 'being there'. In Durham, I would like to thank, Sal, Kanthi, Pat Barber and Andrea for their advice and unwavering support and encouragement. In Banchory, I am indebted to Lesley, Louise, Malcolm, Denise and Dave for their practical, technical and moral support.

Special thanks go to my partner, Gavin, who came to Sri Lanka with me, and spent ten months taking on the role of 'house husband' so that I could get on with my work. Finally I would like to thank my family, especially nan, my greatest champion, who sadly died in July 2002.

My research was funded by the Department of Anthropology and the Department for International Development (Plant Sciences Research Programme 7212, administered by the Centre for Arid Zone Studies).

Declaration

This thesis derives from work undertaken by the author under the supervision of Professor Paul Sillitoe in the Department of Anthropology, University of Durham. The material included here is original and all other work used is acknowledged at the relevant places in the text. Some parts of the material have been published under the author's name and this publication is listed in the bibliography. This thesis is approximately 80,000 words in length.

CONTENTS

ILLUSTRATIONS

MAPS

TABLES

PLATES

DIAGRAMS

1

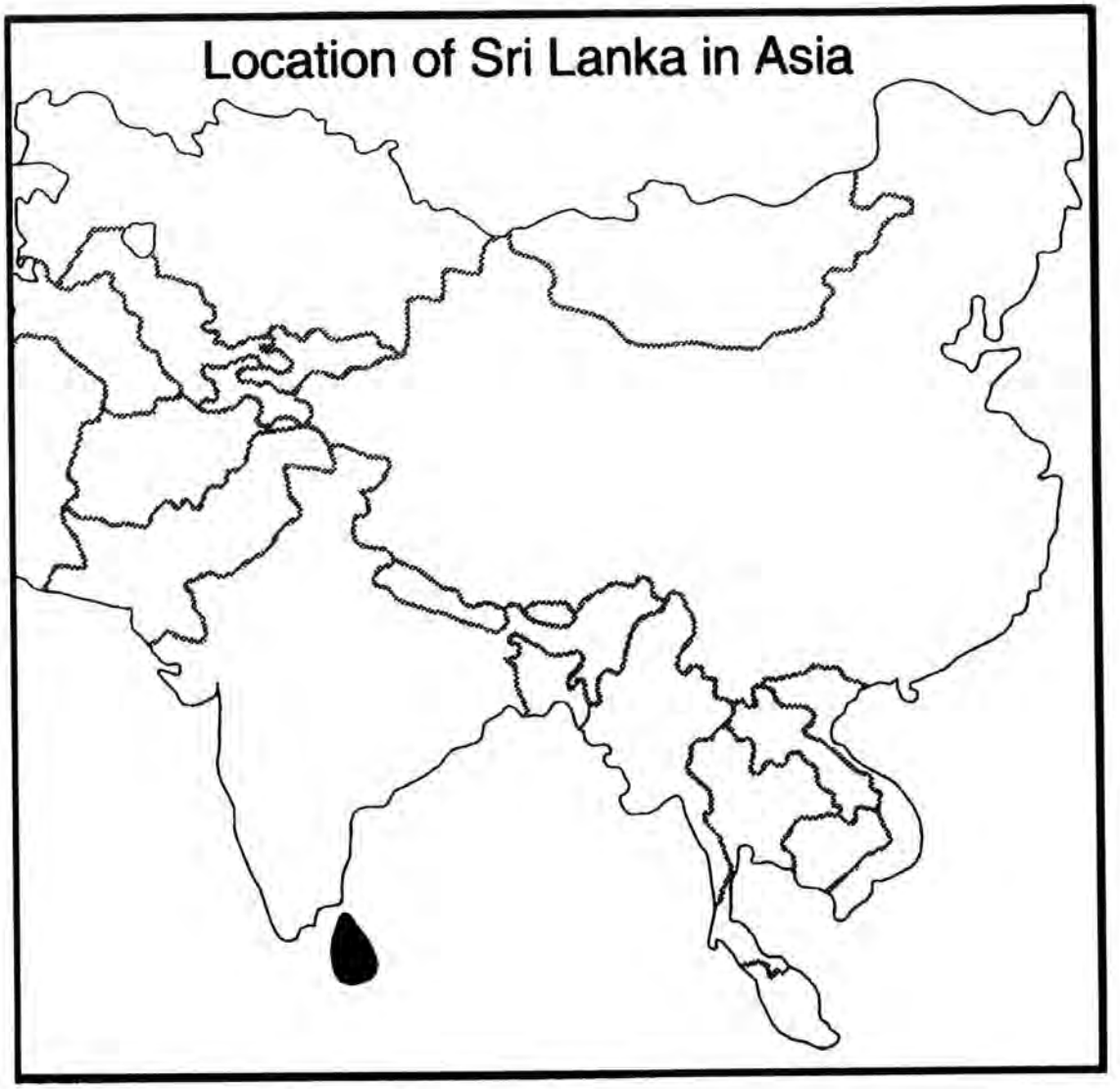
Introduction

This thesis is a study of rural development in the Southeast of Sri Lanka, based on sixteen months of ethnographic research undertaken in the villages of Mediriya, Therrapahuwa and Walamatiara. The study aims to explore how current development concerns to alleviate poverty and empower the rural poor operate in practice, with particular emphasis on ethnography as a tool to understand this process. Using this approach brings a level of 'dissassurance' to development, highlighting the problems encountered when trying to understand something about others (Nolan, 2002; Sillitoe, 2002). Key notions such as 'sustainability' and 'participation' are critically examined to reveal complex and often conflicting issues as knowledge, politics and power.

My fieldwork, carried out between 1999 and 2000, came out of a DFID funded natural resources project[1] which focussed on the intercropping of banana with rubber. I was part of a multidisciplinary team whose members came from the University of Wales-Bangor, Rubber Research Institute of Sri Lanka and University of Durham. The project's aim was to benefit smallholder farmers who wished to plant, or replant, rubber. The basic premise of the research was that rubber can provide a steady source of income, while intercrops can increase earnings and so the project aspires to assist alleviation of 'poverty' through small-scale realistic improvements to land use.

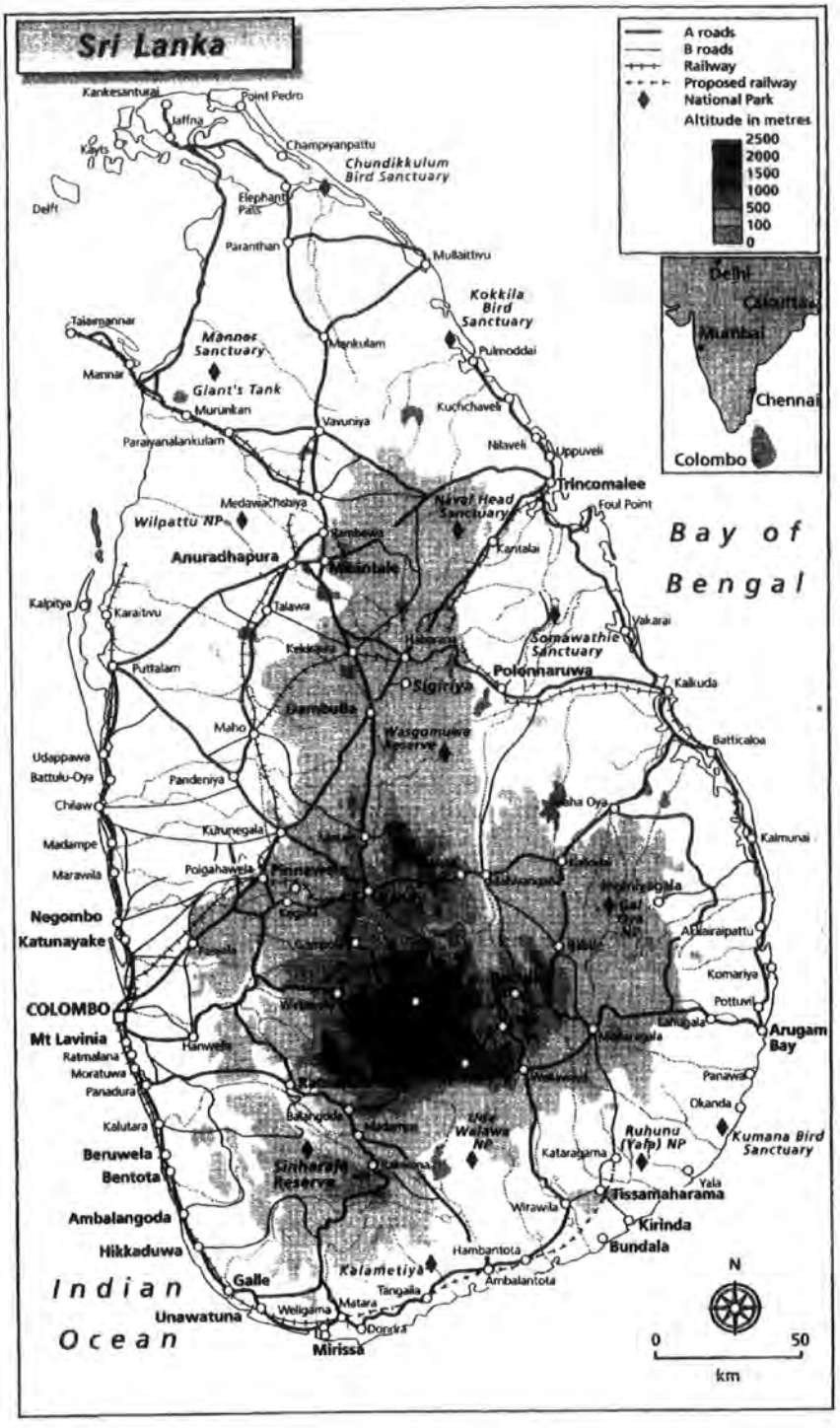
[1] Plant science research program 7212, funded by the UK Department for International Development (DFID) and administered by the Centre for Arid Zone Studies (CAZS).

Map 1



Taken from Baker, 1998.

Map 2



Taken from Bradnock, 1998.

However, a central assertion of this thesis is that a holistic view of research and development is needed if we are to understand how 'poverty alleviation' strategies actually fit in with reality at the grass-roots level. As Stirrat points out: "anthropologists stand outside the development world and instead of asking what might be the contribution of anthropology to development, ask the more traditional question of the anthropologist which is, 'What an earth is going on here?'" (2000:32). However, concerns for the future of anthropology in development should also encompass ideas of how anthropology can become more usefully involved in all aspects of the development project. For example, the current popularity, however rhetorical, of indigenous knowledge and the participation of local people in the development process, opens up possibilities for a "redefinition of the meaning of development" and its aims (Sillitoe,2002).

Anthropologists (amongst others) working within the field of development have become increasingly concerned with understanding what the term 'development' means to various stakeholders and who ultimately benefits from intervention. Gunasinghe, for example, has called attention to the fact that "an agrarian system does not exist in a vacuum" (1992:135). In line with this call to contextualise development, this thesis (see also Rew, 1985; Grillo, 1997; Pottier, 1997; Nolan, 2002) seeks to place development projects within a wider 'macro' framework, in order to "reflect on the total context of the research process" (Pottier,1997:223) . A broader view of development also allows for the necessary inclusion of a range of 'interacting' stakeholders including an analysis of the 'developers' (or researchers) themselves.

The island of Sri Lanka is located just below the southeastern tip of India (see Map 1) and measures roughly 400 km by 240 km (Johnson and Scrivenor, 1981:4). The population is estimated to be 18 million and is made up of several ethnic groups. The Sinhalese constitute about 74 per cent of the population while Tamils make up 10 per cent[2] and Muslims (of Arab descent) around 7 per cent (*Dept of census and Statistics/Sri Lanka*: www.statistics.gov.lk). Other smaller, ethnic groups consist of Burghers (English-speaking Eurasians, primarily descendants of the Portuguese and Dutch), Malays and Veddahs. The Veddahs are an indigenous group who are thought to be the original inhabitants of Sri Lanka before the arrival of the Sinhalese from northern India around 2500 years ago (ibid).

Sri Lanka has a high literacy rate (approximately 86 per cent) and a fairly advanced health system which provides free medical care. As Moore points out, "the level of administration and of social, education and institutional development in Sri Lanka is so high that it is frequently described as a developing country which happens to be very poor" (1992a:30). The national economy is heavily dependent upon the export of plantation crops such as tea, rubber, coconut and spices although textile and garment manufacturing as well as tourism (during 'relatively' peaceful times) earn foreign currency. However the civil war, which has been on going since the early 1980s, has cost the Sri Lankan economy greatly.

[2] There are two distinct groups of Tamils in Sri Lanka. One group are the 'Sri Lankan' Tamils, made up of descendants of southern Indians who have migrated to Sri Lanka over the centuries. They are located predominantly in the North. The other group consist of 'plantation' or 'Indian' Tamils whose ancestors were brought from India by the British to work on the plantations. They are mainly located in the central 'hill country' (see Map 2).

The villages of Mediriya, Therrapahuwa and Walamatiara are located in Moneragala District. For Sri Lankans living in more populated areas, Moneragala conjures up images of 'barrenness' and 'backwardness', and is referred to as 'bandit country'. My sanity (and safety) was often called into question by Sri Lankan friends and colleagues, many of whom had never been to the southeast, nor wished to. Yet, these 'images' of Moneragala, whether they reveal a 'true' picture or not, have been built up over the centuries, creating a disparaging picture of the district and its people. For example, a dip into the complex history of Sri Lanka reveals the legacy of British rule on the current political structure of the country. Indeed, Tambiah (1992) notes that the British colonial state, fearful of rebellions, constructed a repressive regime which focussed on centralising the administration in Colombo, the Country's primary mercantile centre. He states:

> "At independence, the apparatus of a heavily centralised regime was transferred to the local political elite...and an administrative service, imbued with 'paternalistic' and hierarchical values of dispensing law and order, progress and enlightenment, to the ordinary man-in-the street at large..." (ibid:180).

Tambiah points out that in the present day, despite government attempts at devolution, political elites are reluctant to relinquish any power and have failed to integrate local government institutions into the larger political structure, thus preventing the rural masses, distant from the hub of power in Colombo, from participating effectively in the political system. Poverty' in Moneragala District is thus not of recent origin but has been adversely affected by repeated invasions and battles going back to the twelfth century (see De Silva, 1981), persecution by the British and, up until recently, a general neglect by state powers in Colombo. Like many rural villages across Sri Lanka, the villagers I worked with

had seen their fair share of 'development projects', most of which had fallen by the wayside and often for the same reasons development efforts have 'failed' in similar settings world wide (e.g. the lack of research into local contexts).

Rural development is influenced by many factors, which interact in ways that result in project aims being very complex (Nolan, 2002). In this thesis, I have taken the aims of the rubber intercropping project such as sustainablity, poverty alleviation and participation as the focus in order to place current agrarian development efforts within the villages and Moneragala District in the context of local, national and global systems. The main body of the thesis tackles development issues on multiple levels. For example, on one level I focus my attention on village life in Moneragala District while on another level I attempt to place local observations in the context of what is happening at the wider national and international level.

Chapter 2 briefly explores the history of the area to place the current status of Moneragala District, as one of the poorest regions in Sri Lanka, in context. I examine important influences on rural village life such as belief systems, social networks and politics as well as the infrastructural assets available to villagers. A large part of this chapter is devoted to outlining the main crops cultivated in this predominantly agricultural region and the major problems that farmers face (such as water shortages). Nevertheless I also highlight the extent to which households have diversified their strategies into off-farm activities. An appreciation of the scale and variety of rural livelihoods can help promote a

better understanding of local-level decision-making which is essential for sustainable intervention.

In Chapter 3, I start to analyse important issues in relation to current development practice, by examining the role of indigenous knowledge research in a natural resources context. Looking in detail at indigenous knowledge with particular emphasis on soil resources and intercropping in the villages, I attempt to build on ideas that recognise the validity and relevance of local people's knowledge in achieving sustainable development and empowerment of the rural poor. However, I argue that it is important to be aware of meanings attached to various ideas of what constitutes indigenous knowledge, particularly in natural resources projects that aim to combine indigenous with western scientific knowledge in order to find and fill 'gaps' in information.

Chapters 4 and 5 take a more 'macro' level approach by examining some development-related issues that also have implications for the rubber intercropping project. Chapter 4 looks at the impact of international and national development policy on sustainable development efforts at the local level despite widespread concerns with alleviating poverty. Using an historical approach, I highlight the debilitating consequences of the interference of politics in the development process, which continues to constrain the adoption and dissemination of development technology. Chapter 5 examines notions of 'power' and its significance in understanding social relations in development. I discuss current development ideas which focus on empowerment through collective action whilst emphasising that social interactions are often embedded

in relations of power. I consider issues surrounding the representation of knowledge, accentuating the problematic nature of development discourse and the implications this has for the 'ethnographic text'.

Chapter 6 unpacks the meanings associated with 'participation' and the implications of participatory ideology for sustainable development. I explore the relevance of 'quick-fix' techniques like Participatory Rural Appraisal whilst looking closely at how anthropological approaches to research, such as long-term fieldwork and participant-observation, can be reconciled with notions of participation. I will highlight some of the situations I found myself in for as Clifford points out:

> "The self reflexive 'fieldwork account' [is] variously sophisticated and naïve, confessional and analytic [but] these accounts provide an important forum for the discussion of a wide range of issues, epistemological, existential and political. The discourse of the cultural analyst can no longer be simply that of the 'experienced' observer, describing and interpreting custom. Ethnographic experience and the participant-observation ideal are shown to be problematic" (1984:14).

This brings the thesis to the conclusion, which offers a critique of such concepts as sustainable livelihoods and participatory development whilst exploring the possible directions anthropology may follow in development.

The Anthropology of Development: some theoretical reflections

If we examine much of applied anthropological literature today, particularly those offering a critique of past development efforts, it would be difficult to find any work that praises what has gone on in the past. For example, Max-Neef claims that:

> "One can say that there had never been so much economic growth in the history of humankind. But neither had the world seen before, as it

> did in these same four decades, so much destruction of the social fabric, so many ecological disasters, such crises from over-exploitation of natural resources, such global increase in poverty and wretchedness. There may be pockets here and there where things have improved, but overall there has never been such a great increase in poverty, in destruction of the social fabric, in environmental and ecological crises" (1998:67).

I have frequently used texts that are critical of development in this thesis but, at the same time, there is optimism about the future of development, especially now that projects aim to include local people in the process as partners rather than passive recipients. However, the transition from 'top-down' to a 'bottom-up' grassroots participatory perspective (Sillitoe, 1998b) has not been (and will not be) an easy one, not least because, as I point out in Chapter 4, it can even be difficult to even decide what 'development' is.

In a practical sense, 'development' is a term used to describe global efforts to eradicate poverty. However, Hobart warns that despite the prevailing 'rhetoric' of altruistic concern for the less fortunate, it is useful to remember that development is big business" (1993:2). Gegeo (1998), points out that rural development is linked to empowerment, focussing not only on material and economic needs but also 'emotional, ethical and political empowerment' (p.297). However, Nolan believes we have to recognise that ultimately, "development is not a thing or a concept, it is a *process* – of negotiation and sometimes conflict – over whose goals and values will prevail in change, whose rules will apply" (2002:21).

Most development aid is directed through 'projects', which are considered, by donors, to be an efficient way of channelling resources (Nolan,2002:91).

However, the very nature of the development project can cause problems especially when the reality of the local setting clashes with project aims. Nolan highlights the difficulties in planning and implementing projects:

> "Projects have certain special characteristics. They are *limited* in scope, space, and time, and they are often *experimental*, designed to test new approaches or concepts...They are *developmental* in the sense that they are intended to set in motion a chain of events that will continue after the project has ended...They are also *value-laden*; that is projects represent choices made by planners and other stakeholders about alternative visions of the future and acceptable ways of getting there...Finally, projects are *collaborative*; requiring different groups of people – often with different viewpoints - to work together" (ibid:92).

Thus, we have to ask ourselves a number of searching questions during the planning stage such as:

> "Will the technology benefit the poor? Does it utilise resources the poor people already have? Is it relatively free of risk? Is it culturally acceptable to the poor? Is it land or labour intensive rather than capital intensive? Is it simple to understand? Can the technology be communicated efficiently? Does it require a minimum of on-site supervision? Is it simple to teach? Does it arouse enthusiasm among the farmers? Is the technology widely available?" (Gupta, 1991:41).

Yet, there are other issues at stake which can fundamentally influence the success of any development endeavour. For example, the 'sustainability' of a project and the extent to which it is 'participatory' often depends on the nature of the 'community'. Is the project compatible with the local environmental and cultural surroundings? Is the community divided into factions? What drives these factions (i.e. class, ethnicity, religion or politics)? Does the 'community' even exist? If not, is there an established framework with which to encourage collective action? We must also consider the wider implications of policy (the rules and guidelines of which heavily influence the development project). Shore and Wright believe that the language of policy can present anthropologists with

a means for examining "how political systems work at the level of discourse and power" (1997:24). For example, they point out that:

> "In one sense, the language of policy-making seems to endorse realism by presenting 'problems' as if they could be solved by filling knowledge gaps with new, objective data. But these gaps are not voids. They are crowded spaces already filled with moral values and preconceptions. They require prescriptive language which says what is *needed*, rather than descriptive accounts 'telling it as it is'" (ibid:21).

Hobart even questions the basic assumption that people from different (or even the same) backgrounds will be able to work together on a development project. He says:

> "The implication is that, if both sides improve communication a major obstacle will be removed. Such a view is naïvely optimistic. Not only does it ignore the many reasons people may have for not wishing to communicate and indeed to want to dissimulate, it also rests upon a model of knowledge as communicable propositions and presumes rationality to be shared" (1993:11).

So, how can development reach the 'goal' of sustainability? Nolan believes that successful development depends on content and context knowledge where, "*content knowledge* includes specific details of processes, operations, and formulae – the procedures necessary to accomplish a task. *Context knowledge* refers to the understanding of a specific environment in which the task will be carried out" (2002:21). Thus, while matters of *content* (budgets, policies etc.) are very important, *context* is also essential for it is at the grassroots level where policy encounters the reality of life in rural settings. Indeed, effective development assistance is contingent upon an understanding of indigenous knowledge and practices (Sillitoe, 1998b). It is at this point that we should perhaps consider how anthropology can contribute to current development efforts.

Anthropologists in Development

In development, anthropologists can play a critical role by providing the means for understanding local context and incorporating this context into the development process, like facilitating dialogue between local stakeholders and 'developers'. Sillitoe believes that anthropologists need "to facilitate meaningful communication between scientists and local people to establish what research may have to offer, informing natural science with ethnographic findings and recognising the advantages of each" (1998b:230). Nolan points out that, "anthropology provides, among other things, a clear and keen sense of the real, and can often be crucial for bridging gaps between policies, plans and ground-level implementation" (2002:73). Such a task, however, must also include an understanding that the local stakeholders are not homogenous or 'uniform' and there are multiple and overlapping groups of people. Often there are conflicting interests between groups and even within groups.

There are many attributes of anthropology that are useful in development practice, particularly with the current focus on the relevance of indigenous knowledge and participation. However, Pottier (1997:203) claims that anthropologists must also "contextualise research activities and events, reflect on how knowledge is produced and write it all down as reflexive ethnography". Grillo believes that while a distinction between *development anthropology* and an *anthropology of development* is not universally accepted, the first may be associated with 'application' (for example, evaluating a project or offering policy advice), and the other with the analysis of development as a cultural, economic

and political process (1997:2). Grillo also highlights seven themes in relation to recent work in the anthropology of development:

> "1) A continuing diffidence on the part of anthropologists working in the development field; 2) An increasingly focused sense of the anthropological contribution defined in terms of what anthropologists say about culture and social relations; 3) Opposition to the marginalisation of indigenous peoples and their knowledge; 4) A keen interest in bottom up solutions and in mechanisms of empowerment; 5) Cynicism about the aims and practices of development; 6) The emergence of critical views of development and the development process; 7) The advocacy by some of alternative ways of doing both development and anthropology" (ibid:11).

However, even practising 'development anthropologists' must also consider the issues that are associated with the 'anthropology of development', especially engaging with critical perspectives on the processes of development. This thesis is a product of both approaches.

My role within the project was to conduct an in-depth ethnography of village life in Mediriya[3] but I had planned to write my thesis on relations between team members and local farmers in various research settings. I had hoped, naïvely perhaps, that when the scientists visited research sites around the island, they would take me with them. This plan was thwarted somewhat when I found myself in a fairly remote village[4] and with my 'hands full' learning to farm and getting to know village life so that I could fulfil my role in the project. However, I have reflected on the wider context in which the project was set because I wanted to assess if there were 'outside' factors that might influence the 'success' of the rubber-intercropping technology and to examine the various

[3] I chose to expand my study over the neighbouring villages of Walamatiara and Therrapahuwa for reasons outlined in Chapter 2.
[4] A field location that I had willingly agreed to go to without thinking of the implications.

ways in which anthropology may contribute to the process through the interdisciplinary development team.

Teamwork in development

Within development, the anthropologist can play an important role, not only by collecting and analysing information but also in 'managing' interactions (Nolan, 2002:106).[5] However, such contributions can also be problematic. For example, who is to be included in the development team? Indeed, how can anthropologists convince others that they are a 'useful' element of the team? Much has been written on the benefits of having a social scientist as part of the interdisciplinary team, particularly as, 'traditionally', anthropologists have provided a link with local people with whom they work over a period of time. Nevertheless, anthropologists may have less in common with local natural resources 'experts' than natural or biophysical scientists. My attempts to find a place within the team where I would be of some use, both to the project and the people the project aimed to help, was made difficult by the problems of defining what I could do. Again, I am not alone in this struggle as Rhoades [*et al.*] indicates:

> "When I took up my job at CIP [International Potato Centre]... my training in anthropology had not prepared me to cope with the special challenges of agricultural research. Graduate School had emphasized doing research alone, single authored papers, and in-house orientation... Although I vowed early on to remain neutral, I found it impossible. There was a sort of ritualised form of "insults" which were passed back and forth between members of different disciplines. I was totally unprepared for the intense questioning that I as an anthropologist had to face. Although I had done some summertime AID-type consulting, I had in the large been around anthropologists who all agreed that anthropology was a Godsend. Suddenly I was out of the environment

[5] Nolan emphasises that, "a typical development project involves a variety of different groups. To work effectively, the anthropologists must manage not only her relationship to all those groups, but also their relationship to each other" (2002:80).

> where anthropology was valued for itself. Instead, the issue was constantly forced on me; "prove what anthropology can contribute" or "why does agricultural research need anthropology?... Answering these questions was not easy. At first I experienced great difficulty in expressing precisely what role anthropology could play. The old "farmer doesn't grow improved maize 'cause it makes lousy tortillas' argument fell on deaf ears..." (1986:23-24).

In 1976, Petrie claimed that "the importance of interdisciplinary work has seldom been matched by its fruitfulness. All too often grandly conceived interdisciplinary projects never get off the ground and the level of scholarship seldom exceeds that of a glorified bull session" (p.30). Nearly two decades later, many, like Miller, maintain that there are few models of collaboration which have been successful and "little concrete evidence of how it should be attempted" (1994:19). Obviously, in discussing the complexities of team interaction, we must be careful not to divert attention away from farmer priorities (Chamber et al., 1989). Yet, the amount of interaction between team members can affect the quality of representation and exchange of ideas between researchers and local people. Chubin *et al.* believe that such interactions should be examined, stating: "Anybody who does research wonders occasionally, usually not aloud, about the process itself" (1986:3).

Why Have Teams from Different Disciplines?

It seems more and more that the demands of development related research require the assembling of 'teams' of collaborators with different professional or disciplinary backgrounds and 'types' of knowledge.[6] This is certainly so in natural resources research, particularly when dealing with agriculture and

[6] As Dixon *et al* also point out, "The British Government's Department for International Development (DFID) is seeking to integrate participatory practice and systems thinking into its Natural Resources Systems Programme by adopting an interdisciplinary framework" (2000:163).

attempts to improve the livelihoods of local people in a sustainable manner.[7] There has been much discussion (see for example, Dixon *et al.*, 2000) over the past few decades of the problems of trying to "bridge the gap between the different categories and concepts of different disciplines" (Petrie,1976:42). Indeed Petrie believes that "only when you see what I see does interdisciplinary work have a chance" (ibid). Yet, despite calls for disciplines to work together, in many cases the gap that needs to be bridged often seems insurmountable. Why, then, is teamwork positively encouraged in development work? Anders and Mueller state that:

> "Agricultural science is a vicarious problem-solving activity which employs specialized research skills and knowledge from several scientific disciplines with the purpose of solving practical farming problems...[However] substantive problems of agricultural production can rarely be solved by individual scientists working in isolation" (1995:53-54).

Janssen and Goldsworthy add: "Multidisciplinarity helps bridge gaps in problem solving that result from disciplinary specialisations. It helps integrate the results from different disciplines and allows research to address subjects that lie beyond the disciplinary skills of individual scientists" (1995:1). An important point to make here is that indigenous knowledge itself is by default interdisciplinary because farmers do not separate their lives into distinct categories such as soil science or crop breeding; it is all linked together for them (Sillitoe, pers. comm.). Thus, it seems that an important characteristic of any sustainable agriculture research is the interdisciplinary or multidisciplinary

[7] Although, as Lockeretz points out: "Discussions of research on sustainable agriculture usually include 'multidisciplinary' (or a related work, such as 'interdisciplinary') amongst its most important characteristics...But 'sustainable' refers to the goals of research, while 'multidisciplinary' refers to a way of reaching these goals. To link the two so closely together has important consequences for the design of successful research programs" (1991:101).

'team', working on the idea that different perspectives, including those of all stakeholders, are needed to solve a problem.

What Makes a Team Multidisciplinary rather than Interdisciplinary?

In Chapter 4 I discuss how natural resources management and development is inherently problematic. Indeed, past approaches at increasing agricultural production and reducing rural poverty have proved, in many cases, to be less than satisfactory. Part of the thinking behind current 'participatory' related techniques is that problems often have very disparate dimensions (Janssen and Goldworthy,1995). Recognition of the benefits of a collaborative effort between researchers from various disciplinary backgrounds who are able to examine the problem from different perspectives is not a new phenomenon. Gabriel notes that Farming Systems Research (FSR) has a history of taking an interdisciplinary approach to farming, as it aims, "to encapsulate...farmers' adaptive strategy for balancing several crops, livestock, and the combination of on-and-off-farm income-generating activities" (1991:47). Yet there is little agreement as to what this collaboration should be called and what it should entail. As Lockeretz points out: "Multidisciplinary research takes many forms, according to how strongly the disciplines interact and whether the purpose is to address a broader question or to get a better answer to the original question" (1991:101).

Various ideas exist as to when a team can be defined as multidisciplinary or interdisciplinary.[8] Petrie provides the following definition (see also Swanson,1979; Epton *et al.*,1983; Lockeretz,1991; Sands, 1993; Faber & Scheper,1997):

> "I distinguish between interdisciplinary and multidisciplinary efforts. The line is not hard and fast, but roughly it is that multidisciplinary projects simply require everyone to do their own thing together with little necessity for any one participant to be aware of any other participant's work... Interdisciplinary efforts on the other hand, require more or less integration and even modification of the disciplinary sub-contributions while the inquiry is proceeding. Different participants need to take into account the contributions of their fellows in order to make their own contributions" (1976:30).

However Epton *et al.* believe that the value-laden meanings of these terms impose a methodological problem. For example:

> "...it is possible for a unit to purport to be working in an interdisciplinary manner yet not fulfil its responsibility for self integration. In such a case there is an implication that the group should be referred to as multidisciplinary. As a result, the terms lose their objective status and become evaluative- interdisciplinary good, multidisciplinary, bad" (1983:5).

Thus they believe that the term cross-disciplinary should be employed to characterize the content of the problem (1983:7).

One could ask whether it matters what terms you use as long as some form of interaction takes place, research produces interesting results and project outputs satisfy funding bodies. From my perspective, it is important to appreciate the differences between a team that works in an interdisciplinary manner from one that is multidisciplinary, particularly if it helps promote an

[8] Another term involved in the debate is trans-disciplinary where the team share the same ideas and integrate their methods and concepts (Sands, 1993).

understanding of the difficulties involved in trying to understand the 'other' (disciplinary) point of view. As Giri, (quoting Kothari, 1988) points out:

> "...For true interdisciplinarity to develop, it is the individual that has to become interdisciplinary,[9] not the group... interdisciplinary research...means having the courage to abandon one's discipline and enter inside other disciplines with a genuine spirit of participation and not with the casual stock-taking of a passer-by" (1998:386).

The problems associated with team interaction and communication are not limited to the individual "transcending" disciplinary boundaries (Giri,1998), although it is increasingly recognised that interpersonal relations informed by group and individual attitudes and behaviour play a significant role in the success of collaborative research (Epton *et al.*,1983).

Moreover, there are varying guidelines on how to manage the inevitable differences of opinion, which characterise communication in disciplinary collaboration (that is, if people even begin to communicate at all). Epton *et al.* (1983) believe that the problems of communication lie in the fact that not only must disciplines from diverse backgrounds overcome personal and institutional obstacles but also that collaboration requires individuals to travel, 'cognitively', over greater distances. Petrie maintains that the participants must recognise that different disciplines have different cognitive maps stating that this:

> "Includes, but is not limited to, basic concepts, modes of inquiry, what counts as a problem, observational categories, representation techniques, standards of proof, types of explanation, and general ideals of what constitutes the discipline" (1976:35).

More importantly he highlights how "two opposing disciplinarians can look at the same thing and not see the same thing" (p.35). It should be obvious, especially to an anthropologist, that cultural biases influence data collection and

[9] Although there is a limit to what any one person can achieve, however interdisciplinary that person is.

interpretation but as Crow *et al.* point out, whilst "each of us bring learned ways of viewing the world and acting within it that are culturally patterned. Each...scientist, of course, has also become acculturated to the expectations and rules of a specific academic discipline"(1992:739).

It seems that disciplinary collaboration depends upon communication that goes beyond the superficial, demands empathy and a level of trust from each member of a research group. Multiple problems relating to communication have been highlighted but answers as to how these problems can be overcome or at least managed in a way that will allow productive interaction must also be sought. Janssen and Goldsworthy suggest that:

> "Since the individuals that make up multidisciplinary teams come from various disciplinary backgrounds, they may not share the same set of professional norms and values. The team therefore has to develop its own norms, a task requiring skilled leadership and flexibility from team members" (1996:261).

Epton *et al.* maintain that the larger the gap between disciplines, the more effort needs to be expended on managing the integration rather than leaving it to look after itself (1983:11). However, just because the project members ended up as a multidisciplinary rather than an interdisciplinary team, does this make the research any less valid? I would say that multidisciplinary research is fine if that style of working (e.g. everybody doing 'their' bit with some collaboration at the end in putting reports together) is agreed upon by all the team from the start but it also perpetuates disciplinary boundaries in that it allows people the opportunity *not* to communicate. Without communication, there is more likely to be misunderstanding, leading to suspicion and resentment. Interdisciplinary research, on the other hand, should encourage people to interact, stimulating

dialogue and a sharing of ideas. It makes sense for teams to aim for interdisciplinary collaboration in development, especially if the aim of the project is for participation.

The Researcher in Development

In trying to understand the importance of global, national and local connections and associations in any research project, we must also place the researcher 'under the spotlight' and examine ethical issues such as those relating to power and knowledge. Indeed, Belshaw warns:

> "In the real world, the politicians of all kinds call the shots. The anthropologist, if he does his work of research properly, feels he knows the situation and the people better. On the whole, he doesn't. He knows some aspects better, and his analysis reveals forces that others would miss. But he is often blind to the wider political realities, misjudges them because they are further away from his perception, and makes political choices which are just as naïve, emotive, and one sided as those of any other citizen" (1976:255).

Escobar (1991) believes that development anthropologists face ethical dilemmas of involvement (in development), particularly when the 'aim' is to act on the behalf of the poor. For example, Nolan notes that, "Often, the nature of the problem that the anthropologist is to work on - and often the shape of the expected solution - have been defined in advance by the client" (2002:85). Many concerns are raised not least of which is the predicament anthropologists face in deciding how much of the research they should divulge and to whom.

Escobar also questions the term 'problem', stating:

> "There is also an apparent neutrality in identifying people as a 'problem' without realising, first, that this definition of the 'problem' has already been put together in Washington or some capital city of the Third World; second, that problems are defined in such a way that some development program has to be accepted as a legitimate solution; and finally, that along with this 'solution' come administrative measures that

> make people conform to the institution's discursive and practical universe" (1991:667).

In this thesis, I consider how 'traditional' anthropological techniques marry with the requirements of a 'participatory' development project, yet we must also consider how our own writings encounter processes of power and knowledge. As Turner (2000) points out, it is now widely accepted that anthropologists are not detached observers and must be seen as an "active, situated, participant in the construction of accounts and representations". Indeed, Clifford maintains that writing is, "no longer a marginal, or occulted, dimension [and] has emerged as central to what anthropologists do both in the field and thereafter" (1986:2).

Nolan claims that the "demands of development work have challenged anthropologists in multiple ways, forcing them to extend their own capabilities at the same time as their beliefs and principles are being tested" (2002:85). Interdisciplinary teamwork is considered as central to methodological advances in development, particularly as it promotes an integrated perspective allowing all 'knowledges' a place in the process (Sillitoe, 1998b). Indeed, as I point out in Chapter 6 and as Chambers *et al.* (1989) have already highlighted, in participatory agricultural research, "the farmer may participate, but the work is often 'researcher-driven' and generates insights only within the researcher's categories of thought" (1989:103). However the applied anthropologist's role is much more than ensuring local people have adequate and appropriate representation in the development process and that indigenous knowledge is also recognised as a legitimate 'science'. Nader examines how the control of knowledge is at play at all institutional levels; she ponders: "what is it about

boundaries that makes them important to power relations? A style favoured by contrasts includes some things, excludes others and creates hierarchies privileging one form of knowledge over another" (1996:2). Epistemologically, anthropologists need to guard against ethnocentrism, where the danger lies in the "investigator [using] a preconceived model of the world to access and structure others' ideas, even to assess them" (Sillitoe,2000:7).

There is a role for anthropology in natural resources development, particularly in relation to indigenous knowledge research but the road ahead is a difficult one. Perhaps to understand fully the often precarious position anthropologists have found themselves in when trying to contribute to development, we should look briefly at the part anthropologists have played in the history of Western intervention overseas. What will hopefully become clear is that there has been a long history of struggle within the discipline over whether it should become involved in problem solving for development at all. The current 'crises of representation' is yet another strand of these deliberations. Benthall highlights the dilemma when he states:

> "There are a number of...reasons why anthropologists are failing to engage with the key problems of the contemporary world. One is the character of the discipline itself and the way it has traditionally drawn a boundary between the notions of 'pure' (i.e. academic and theoretical) and 'applied' research. Applied anthropology is still regarded as the ultimate sin: a second division league for failed scholars unable to find 'proper' (i.e. University) jobs. Another reason...lies in the traditional image of itself as non-political, its reluctance as a profession to be associated with overtly critical standpoints and its notion that one can only speak after many years of research-and even then, only on the specific area of specialism" (1995:26).

Applied Anthropology: An Uncomfortable Discipline?

In 1981, Firth, on accepting the Malinowski Award of the Society for Applied Anthropologists, called attention to the fact that "great sectors of the world outside still have to be convinced that anthropology has anything very useful to offer, either in the solution of practical questions or as a general comment on the human condition" (1981:193).[10] He went on to state that:

> "While we are convinced that our studies can ultimately be of public benefit, albeit in diffuse ways, we find it hard to get this generally recognized. So,...we need to focus our work more on social problems, and in communication with those already engaged on such problems...But the very nature of anthropology as an inquisitive, challenging, uncomfortable discipline, questioning established positions and proclaimed values, peering into underlying interests, and if not destroying fictions and empty phrases as Malinowski said,[11] at least exposing them- all this poses difficulty for its application to practical problems (1981:200).

Many have pointed out that the "application of anthropological knowledge to practical affairs" is not new (Escobar, 1991; see also Firth, 1981; Grillo and Rew,1985; Purcell, 1998) although there was, and still is, a debate as to whether the applied anthropologist was actually engaging in anthropology as opposed to the "non scientific field of administration" (Escobar, 1991:661). Grillo notes that the term 'applied anthropology' is a value-laden concept, which can have different meanings through time and space. He states:

> "Indeed, because the term has been used in so many different ways...and has referred to so may different sorts of activity, or because, alternatively, it is thought to be associated with one kind of activity or

[10] Gabriel explains how the idea that anthropology might have a practical relevance is not new and extends back to "Malinowski's (1929) notion of a 'practical anthropology' and Radcliffe-Brown's (1931) 'applied anthropology'" (1991:35).

[11] Firth highlights how, "In his later writing particularly, Malinowski held that ethnographers who have studied culture contact and assessed its potential and dangers have the right and duty to formulate their conclusions in a way in which they can be seriously considered by those who frame policy and carry it out. They also have a duty to speak as the natives' advocate. But, Malinowski argues too that ethnographers must recognize their limitations- decisions and handling of practical affairs are outside their competence. Their primary duties are to present facts, develop concepts, destroy fictions and empty phrases, and so reveal relevant, active forces" (1981:195).

school or style or period of research rather than another, the label itself has been questioned" (1985:5).

Sillitoe believes that employing the label 'applied' in relation to anthropologists working in development is a 'contradiction in terms', and he stresses the implications of its use:

> "The only way in which anthropological knowledge can be applied in development contexts is to couple it with a knowledge of some other field such as agriculture, engineering, medicine or economics... Anthropology is not an applied science; it cannot predict outcomes or solve problems...The idea that social scientists, and anthropologists in particular, can help move less developed countries relatively painlessly into the industrial world is a dangerous myth, raising people's expectations far beyond what is practicable and leading to disillusionment and even a sense of betrayal" (2000b:8-9).

The difficulties in understanding meanings behind the 'applied' label may be better understood through a brief review of the development activities of anthropologists starting from the colonial period.

Purcell (1998) believes that there are three phases of applied anthropology (although he does emphasise that the boundaries are blurred); the colonial phase, the World War Two phase and the development anthropology phase. He highlights that some of the earliest organised efforts of applied anthropology from the late nineteenth to the early twentieth century was in response to a belief that 'natives' had to be moved from savagery to civilization. The problems associated with this 'duty' to civilise (see Chapter 4) were compounded by an underlying dilemma of "how to respect cultural relativism while helping the 'natives' move towards or adjust to modernity" (1998:261). Throughout the colonial period applied anthropologists were generally hired by administrations "seeking to control the volatile boundary between the indigenous and non-

indigenous" (Purcell,1998:261). Indeed, during the 1930s four types of anthropological activities were considered to be in the applied or practical field:

> "Research on contemporary society, especially on 'culture contact', later to be called social change, in the colonies; research into a number of specific problems of concern to colonial administrators (not always or even usually at their request); provision of information and/or advice to those administrators; and the involvement of anthropologists in the training of administrators" (Grillo,1985:5).

However, this period of applied anthropology (which has attracted critical attention, the discipline itself originally growing with the simultaneous development of the British Empire) was marked by an uneasy alliance with colonial authorities on who anthropologists often depended for permission to carry out studies and financial support.[12] Indeed James points out that:

> "As an individual, the anthropologist can often appear as a critic of colonial policy, of the philosophy of Western superiority upon which it was based and in terms of which it was justified; and he was usually at odds with the various administrators, missionaries and other local Europeans he had dealings with" (1973:42).

Purcell (1998) adds that although the applied anthropologists acted in the service of colonial expansion we must also recognise that they sought also to 'humanise' colonialism. In doing so, their activities came under scrutiny. Lewis describes how:

> "Devoted colonial officials were deeply suspicious of the methods of anthropologists whom they saw, not entirely unjustly as exploitative opportunists who were more interested in using the local population as material for PhD theses, to advance their personal careers, than in the latter's long term problems and welfare" (1995:96).

Applied anthropology faced serious communication problems from the start, particularly as it was forced to 'sell' itself as a scientific study that would yield

[12] It should also be noted that, "the colonial power structure made the object of anthropological study accessible and safe" (Asad, 1973:17).

valuable information for colonial authorities. Paradoxically, it was found that local administrators did not have time for "long-winded 'academic egg-heads' whose learned disquisitions tended to be couched in abstruse jargon and concentrated on exotic 'theoretical' problems rather than important practical issues" (Lewis,1995:96).

The second phase of development, referred to as the "World War Two" phase was marked by an increase in job opportunities for anthropologists directly related to the 'war effort'. Activities involved developing cultural knowledge of enemies and allies to facilitate policy formation and as Purcell points out, significant contributions to anthropological knowledge were made in the areas of "population and demography studies, food and nutrition, human lactation, linguistics and technology transfer" (1998:263). Yet these contributions also promoted modernisation as well as national interests, which placed anthropologists in a very uncomfortable position. Indeed, misuse of this knowledge for the purposes of "neo-colonial domination" meant that "the legacy of the war effort turned out to be distrust of government" (Purcell,1998:263). Gabriel highlights how anthropology's growing unease was interpreted, "as anthropologists being 'poor team workers', possessing temperaments inherently unsuited to the joint or team approach of most development activities" (1991:41).

In the immediate post-war period, a time when modernization theory was dominant and much foreign aid available, some anthropologists were to find a role, albeit facing ethical problems, in facilitating the diffusion of new technology

(Escobar,1991:662). Nevertheless, Grillo emphasises that for many years after World War Two, the application of anthropology remained a marginal activity (1985). This may have had something to do with anthropologists seeking to distance themselves from the colonial legacy by moving away from the 'applied' side. However, as Grillo points out:

> "...Anthropology had a good standing in the field of colonial development which it was able to exploit to the extent of a large amount of...funding...There is a sense, however, in which that funding was obtained under false pretences, for anthropologists were often unwilling or unable to deliver the goods. Their standing diminished in official eyes... In consequence, when, in the 1960's, colonial regimes became post-colonial and development became the order of the day, anthropology was in no position to offer its services or to take advantage of the opportunities that rose. Those anthropologists interested in development issues, entering a world dominated intellectually by economists, in which the credentials of the anthropologists were suspect, both at home and abroad, had to rebuild their profession almost from scratch" (Grillo, 1985:15).

By the 1970s and 1980s, applied anthropology 'returned'. Escobar explains how: "Development experts and agencies, having become discontent with the poor results of technology and capital intensive top-down interventions, developed a new sensitivity towards the social and cultural factors in their programs" (1991:663). However, since 1989, a period described by Ahmed and Shore (1995) as the "post cold war phase" that still does not have a name to describe it, social anthropology has been faced with a 'crises of representation'. Indeed, Ahmed and Shore state:

> "As the end of the twentieth century draws closer it has become increasingly apparent that the world is changing...Human societies are moving into a new phase of history. Economic and technological developments are giving rise to ever greater cultural diversity, fragmentation and differentiation in place of the homogeneity and standardization that were once the hallmarks of modernisation and mass society...The question is where does all this leave anthropology today? How is it responding to these changes and how relevant is it to

> understanding those key issues confronting the modern world as it enters the next millennium? (1995:12-14).

The question of whether anthropologists can ever really claim to 'represent' other cultures is intricately tied up with notions of knowledge and ownership. The anthropologist as 'expert' on a particular group of a particular culture, able to speak about or for those people whilst remaining largely unaccountable, is now being challenged. An increasing presence of anthropologists in development, acting on behalf of the poor, has raised additional ethical issues, not least of which is the continuing dilemma of involvement based on what Ahmed and Shore define as a crises of *relevance* rather than a crises of *representation* (1995:15).

Gabriel asks, "Is anthropology useful? Can a subject that is popularly supposed to encompass such esoterica as "monkey, bones and magic"... exotic locations or cross-cousin marriage, have anything to offer practical problem-solving in developing countries..." (1991:1). Grillo suggests that anthropologists have already agreed on the nature of their contribution to development, which can be described as, "holistic, in which units of study are conceived as complex wholes consisting of a multiplicity of related elements" (1985:21). However, the holistic approach can itself be problematic in the context of interdisciplinary collaboration. Escobar notes that:

> "The institution [development] necessarily shapes the encounter between anthropologist and "beneficiary" to such an extent that more often than not the real client of the anthropologist is not the latter but rather the hiring institution. It can also be argued that the anthropologists 'holistic' method is rendered inoperative and even useless in the context of development organisations that still operate according to a strict positivists epistemology, for the anthropologists must adopt the same kind of positivists and economistic outlook in his or her dealings with those organizations" (1991:672).

Moreover, Grillo emphasises how:

> "Sponsors often get more than they bargained for. This is not just a matter of more information than they need... it is rather that the findings of the anthropologist, starting from different premises, may challenge the recipients assumptions... in this way anthropological knowledge often seems, and often is, dangerous, or embarrassing. This is not because we are good at digging dirt (though we do, professionally, pay a lot of attention to gossip), or because we try to unravel 'what actually happens', but because we are likely to treat the customers themselves as part of the datum of enquiry, and this as part of the problem under consideration" (1985:23).

The debate concerning the limits of anthropology in development continues but perhaps we can look at it from another perspective. Ahmed (2000) points out that, 'conventional' ethnography overwhelmingly represents a Western discourse, which is embedded within relations of power (see Chapter 5). He believes that the crises of representation "might be solved if the anthropologist does his/her research at home" (ibid:204).

Cernea highlights how: "It is largely assumed that by actively being part of a developing society, the indigenous scholar has a much better chance to know it and understand it than a scholar who has studied this society for a limited amount of time as a foreigner" (1982:129). Nakane presents an alternative picture, stating that:

> "The differences among anthropologists are a function of their concerns and selection of problems, and also of their research areas and designs... Provided that both indigenous and foreign anthropologists are well trained and that the latter are well acquainted with the local socio-cultural situation, it would be difficult to predict which would produce better results" (1982:52).

There has been much discussion of the advantages and disadvantages of being a 'native' or 'indigenous' anthropologist as opposed to a foreign researcher

(see, Hymes, 1974; Fahim, 1982; Agar, 1986; Sillitoe, 1998b). For example, while Ahmed notes that there is, "no guarantee that a 'native' researcher can achieve a more authentic perspective", he believes that as an insider he was better equipped to understand the social world (Bangladesh) and had a tremendous amount of background information (2000:208). On the other hand, outsiders, who are not enculturated, are often able to see aspects of a culture which the 'native' insider might miss (ibid), and be in a better position to offer an impartial assessment of local problems (Lewis,1995: 98). Indeed Cernea observes that, "a much discussed constraint which limits the effectiveness of some, if not all, indigenous anthropologists is their supposed imprisonment in their own native culture" (1982:132).

The debate becomes more complicated when one considers the ways in which the anthropologist's 'multiple identities' can cause confusion and directly impact on his or her ability to conduct research. Ahmed explains how native researchers can experience resistance and suspicion in the field. Despite carrying a 'native stamp', his position as a teacher living in London resulted in him being treated as an 'outsider' by villagers in Bangladesh (2000:207-208). Tedlock distinguishes between the 'native' and 'indigenous' anthropologist, stating:

> "Major transformations in anthropology have also come about because of the emergence of a highly articulate population of 'native' ethnographers from the third and fourth worlds, including various bicultural inside/outsiders. While it is undoubtedly true that insiders may have easier access to certain types of information, especially in the area of daily routines, native anthropology can also be distinguished from indigenous anthropology in that native ethnographers are those who have their own origins in non-European or non-Western cultures and who share a history of colonialism, or an economic relationship based upon subordination" (1991:80).

Some authors, however, have even questioned the use of the term 'native', arguing that it carries ethnocentric assumptions. Narayan claims that:

> "Viewed from the vantage point of the 1990s... it is not clear that the term *native anthropologist* serve us well. Amid the contemporary global flows of trade, politics, migrations, ecology and the mass media, the accepted nexus of authentic culture/demarcated field/exotic locale has unravelled... A 'native' anthropologists is assumed to be an insider who will forward an authentic point of view to the anthropological community [but] the fact that the profession remains intrigued by the notion of the 'native' anthropologists as carrying a stamp of authenticity is particularly obvious in the ways in which identities are doled out to non-western, minority, or mixed anthropologists so that exotic differences overshadows commonalities or complexities "(1993:672-676).

However, within development there is the expectation that native anthropologists are better able to communicate with the target group and that a development project will be more readily accepted by local people if it is presented by 'one of their own' (Cernea,1982:130). Cernea questions this acceptance and asks: "Is this assumption valid? Or is it just wishful thinking?" (ibid). Fahim and Helmer believe that when comparing indigenous anthropologists to foreign researchers. "It was concluded that they have different abilities to create roles for themselves in the local setting, gain access to information, and to understand the values underlying behaviour" (1982:xxxi). Nevertheless, we must continue to reflect on the practical and intellectual implications of anthropology's (including 'native' and 'non-native') presence in development if we are to play a greater role in natural resources project planning and implementation.

The Project

The project's research agenda was based on "incorporating local and scientific knowledge in the development and adaptation of intercropping practice for smallholder rubber lands" (DFID grant application,1997). The overall aim of the project was to carry out research with 'real people' to discover whether previous on-station experiments, that had successfully increased the density of banana intercrops, worked across a range of agro-climatic conditions in Sri Lanka.[13] Whilst rubber can generate income for smallholder farmers in Sri Lanka, the time lag between planting and yield return can also present significant financial problems. Thus intercropping could provide a practical way of improving land use efficiency as well as creating another source of income. However, Rodrigo and Stirling are concerned that: "inappropriate combinations and planting densities of crops render most present systems agronomically and economically inefficient" (1997:1). In a bid to discover the optimum planting density for banana when grown in combination with immature rubber, the project scientists were interested in working with local farmers, principally to find out what they 'know' (labelled as Indigenous Technical Knowledge). Other goals involved experiments to determine the effect of shade on the growth of rubber and banana. In a previous study, Rodrigo and Stirling found that:

> "Despite an increase in shading with planting density, there was no evidence that growth was limited by either light or water... Since bunch yield per plant and percentage of plants yielding were unaffected by density, economic yield of banana was greatest in the high density BBBR" (1997:I).[14]

[13] It has to be noted that this is my interpretation of the research agenda and the scientists did not use terms such as 'real people' and 'real world'.
[14] BBBR represents three rows of banana to one row of rubber.

They also identified that intercropping improved the growth and girth size of rubber, not only reducing the time it takes before tapping can begin, but providing more timber when the plants are senile (1997:ii).

Following several meetings attended by U.K. and Sri Lankan team members between 1998 and 1999, an initial research plan was designed which attempted to lay out the responsibilities of each team member. As well as the continuation of inter-cropping experiments at the Rubber Research Institute, eight Sinhalese villages, known to be growing or interested in growing rubber, were originally chosen. These villages, divided between two major agro-climatic zones (the low-country wet zone and low country intermediate zone),[15] are located in the four districts of Kegalle, Kalutara, Hambantota and Moneragala (see Map 2). The project was careful to choose villages where farmers had applied for a subsidy to plant, or re-plant, rubber. Villages that were not already involved in any other development projects were favoured. Three research areas were set up:

1. On-site experiments (investigating shade level tolerance of banana and rubber) at the Rubber Research Institute of Sri Lanka. This was the research area of the natural science Ph.D.
2. Researcher-led experiments (investigating the optimum planting density possible using alternately one, two and three rows of banana between rubber) located within villages and 'run' by local farmers. This was the research area of the natural scientists and Kanthi, a Sri Lankan social scientist.

[15] They also vary with regards to their isolation from the commercial and multi cultural influences of major towns and cities, particularly Colombo.

3. Farmer-led research areas which had little scientific input and thus the farmer was left to make his or her own choice of intercrop (if an intercrop was chosen at all) and whether inputs such as fertiliser were to be applied. One of the sites was Mediriya, the other was established in the district of Kegalle (and thus frequently visited by Kanthi).

While I remained in Mediriya, Kanthi carried out research in four villages located in Moneragala, Hambantota, Kegalle and Kalutara, covering farmer and researcher-led experiments.

The role assigned to Kanthi and myself was to provide as much context as possible, investigating the socio-economic and cultural factors that may contribute to the decisions that farmers make in agriculture and in particular, rubber intercropping. We were to build on an earlier two-week study that had been carried out for the project. Socio-economic studies[16] were carried out in 1997 by an economist and social anthropologist, primarily on the Western side of the island in the traditional rubber-growing districts of Kegalle and Kalutara while markets in Kurunegala and Ratnapura were also visited (see Map 2). The two-week marketing study attempted "to assess the potential market impact of an increase in banana production arising from widespread adoption of a system of high density banana-rubber intercropping in Sri Lanka" (Gray, 1997:iii). Highlighting the importance of banana in Sri Lanka, which can accompany a meal but also has symbolic significance during various rituals, the study concluded that as an expensive item, demand would increase as income

[16] It should be noted that these studies were not entirely 'independent', that is, they were commissioned by the Project leaders and funded by DFID.

increases (1997:iii).[17] Gray underlined the proposed time cycle for adoption to be ten years stating that:

> "The assumption was based on the fact that smallholder yearly replanting of rubber occurs at the rate of around 1000 hectares per year (Rubber Research Institute). Therefore if farmers immediately adopted the technology it would take a minimum of two and a half years if all the immature rubber are to be intercropped at high densities... Since it takes time for information to be disseminated it has been assumed that adoption would take around four times longer..."(ibid:29).

She also highlighted that the domestic rather than the export market will more likely absorb an increase in banana production as individual farmers largely grow banana on a small-scale. Costs of production and marketing are high which would make it difficult to compete with international suppliers (ibid:26).

During interviews with local people, Gray "found that farmers do not necessarily choose to intercrop with banana because they believe that it is the most profitable crop to grow" (ibid:11). This was taken into consideration when trying to assess the extent to which farmers would adopt high density intercropping of banana with rubber. Gray points out that:

> "While it is unlikely that the contractors who are currently intercropping at high densities with high value crops such as pineapple and aubergine will be willing to change to growing banana, there may be scope for smallholder farmers currently growing banana to change their intercropping practices according to the recommendations of the project" (1997:28).

While adoption of higher density intercropping by smallholders is considered to have little future impact on the domestic banana market, the study did recognise that local 'gluts' may occur, particularly during May to July, due to increased production and falling demand because of other substitutes available (ibid:33).

[17] Although we need to take into account economic principles of supply and demand such that as supply increases, prices will undoubtedly fall. In the villages, the price that farmers received for banana when there was a glut (e.g. New Year in April) was often very low.

A survey of rural livelihoods and attitudes to intercropping was carried out concurrent with the marketing study. The intention "was to look at the potential for smallholders to take up intensified intercropping of banana with immature rubber in Sri Lanka and to consider the extent to which the impact of such uptake would be poverty alleviating" (Janowski, 1997:1). Again, the survey was carried out on the Western coast near or in the traditional rubber growing districts of Colombo, Kegalle and Kalutara located in the Wet Zone. Janowski corroborates Gray's observations that bananas have a high status and says, "Both because of this and because of their relatively high value, people are likely to be interested in growing them" (ibid:19). Janowski identified households that could benefit from intensified intercropping of banana with rubber. The landless were targeted as people who may not be able to grow rubber but could improve income generation through, "the possibility of increased access to labouring work, and in some cases the possibility of contracting other households' immature rubber land for intercropping banana" (1997:1).

Like Gray, Janowski recognised that the potential for banana to be the major intercrop may vary between locations (1997:32). Nevertheless, she believed that banana was promising largely because it is a low maintenance crop and needs little fertiliser or other inorganic supplements (1997:30). Research findings will be disseminated through the production of 'accessible' leaflets via the extensions office, although it is hoped that farmers will also encourage the spread the technology through word-of-mouth. The survey concluded that:

> "There are grounds for thinking that increased intercropping of banana on small rubber plots are likely to have some impact on poverty through intensification of land use by the poor, particularly if it proves possible to

> adopt more intensive systems of intercropping without high capital costs" (1997:31).

However, any technology that hopes to impact on rural poverty must also take into account the wider political and social context in which development in Sri Lanka is set.

Concluding Remarks

While it is beyond scope of this thesis to be able to cover all the issues that may influence development in Sri Lanka, I aim to at least show that sustainable intervention cannot take place unless both *content* and *context* knowledge are taken into consideration (Nolan, 2002). In relation to the rubber-intercropping project in Sri Lanka, the primary aims of which are to increase land efficiency and help alleviate poverty (as well as encourage the planting of rubber), a holistic approach would allow a better understanding of how reality can impact on project outcomes. An underlying theme running through this thesis is the importance of indigenous knowledge and the ability to place an understanding of local perspectives within the wider macro context of regional, national and global systems.

In this thesis I introduce some challenging enquiries emphasising complex issues surrounding development and questioning notions of 'sustainability', 'collaboration', 'poverty', 'power' and 'knowledge'. Yet I also highlight that any understanding of such issues is just one of many possible interpretations. Indeed, Uphoff (1996) notes that there are "characteristically different ways of understanding the world". He states:

> "Though it is a simplification to say this, South Asians, indeed many non-westerners, tend to employ both-and conceptualisations, while persons in the western tradition prefer to view things in either-or terms...We can benefit by learning to think in both-and and either-or terms. These can be contrasted as, respectively binocular and binary ways of looking at the world. The latter may give clarity from its simplicity but the former gives focus and depth of vision" (p.282-283).

However, if anthropologists are to become more active in development planning and implementation we need to be aware of the pitfalls of participating in the process, not least of which are the ethical dilemmas of involvement and the implications inherent in deciding where your 'loyalties' may lie. I point out in Chapter 5 that as an anthropologist working in an applied field with people from other disciplines and cultures I faced the problem of trying to please people with differing wants and needs. As part of a team, I also risked upsetting people I worked with by wanting to examine the level of interaction amongst stakeholders, an important issue as we carry out research in a 'participatory' age. It is now increasingly recognised that for a project to be successful, contributions from people with a range of backgrounds is necessary. Interdisciplinary and multidisciplinary teams are considered the norm in development circles but such collaborations, especially between social and natural scientists, are obviously not without their problems. Kaufmann suggests that: "The palpable tension that exist between the 'scientists' on the one hand and the social developers on the other arises from the potency of the situation in which two ideologies are brought into conflict" (1997:126).

The ethnographic study of rural development can usefully contribute to contemporary anthropology as well as to the theory and actual practice of development, for "good development anthropology must be, above all, good

anthropology" (Nolan, 2002:73). Nolan highlights the potential role of anthropology when he states: "That the world looks different to people from different cultures is obvious. But how and why such differences affect the success or failure of development efforts is much less clear. This is where anthropology provides essential context-based insight" (2002:26). Nolan believes:

> "It is clear that the way ahead for international development efforts must involve both the acknowledgement of difference and the incorporation of these differences into satisfactory and sustainable working relationships between partners...Anthropology's most valuable contribution to development probably lies in this area, more than any other (2002:261)

He suggests that the present challenge for anthropologists is to find ways to use their experience wisely and effectively (ibid:267).

2

Three Villages in Moneragala:

Mediriya, Therrapahuwa and Walamatiara

In the Introduction, I highlighted how my field research was situated in the three small villages of Mediriya, Therrapahuwa and Walamatiara[1] located in Moneragala district. This chapter provides a detailed background to life in these rural villages in relation to wider concerns in Sri Lanka, an understanding that is derived from living with and learning from highly knowledgeable people. By outlining the socio-cultural context in which I carried out ethnographic research, I hope to provide a holistic foundation upon which subsequent discussions of important development issues, such as indigenous knowledge research, policy and interdisciplinary teamwork can be based.

The project team thought that it had held the original PRA exercises in February 1999 in Mediriya (see Chapter 6) and indeed the school hall in which the villagers gathered was within the boundaries of Mediriya village. However, when I returned to Mediriya in June 1999, I realised that while village boundaries were for the most part stationary, people were not. Mediriya is located within Therrapahuwa GS[2] division, which also included five other villages, Walamatiara, Therrapahuwa, Vasanapura, Ekomutupura and Sixteen Mile Post (see Map 5). In fact those that had turned up to the PRA meetings came from a

[1] As they were small in terms of population numbers perhaps they should have called hamlets but people used the word *gama* meaning village and so for the purposes of this thesis I will also refer to them as villages.

[2] *Grama Seva –Grama Sevaka* usually refers to government appointed village administrator. Literally translated it means "village servant" (Robinson,1975:192)

number of different villages but they were closely linked through networks of kin and access to resources. It was later decided that having done some groundwork through the PRA, I should spend the entire duration of my fieldwork conducting a detailed ethnographic study of the village, focussing on local knowledge and rural livelihoods with a particular emphasis on rubber inter-cropping and agriculture. In 1998 this whole region contained a total of 273 households with a population of approximately 1276 persons. The decision to concentrate on the villages of Mediriya, Therrapahuwa and Walamatiara was largely influenced by the fact that I had established myself in Mediriya, after the rubber development officer found a house there that I could rent. The majority of rubber growers also lived in the three villages. This chapter will serve as an introduction to the district and the villages and place them within a wider Sri Lankan setting.

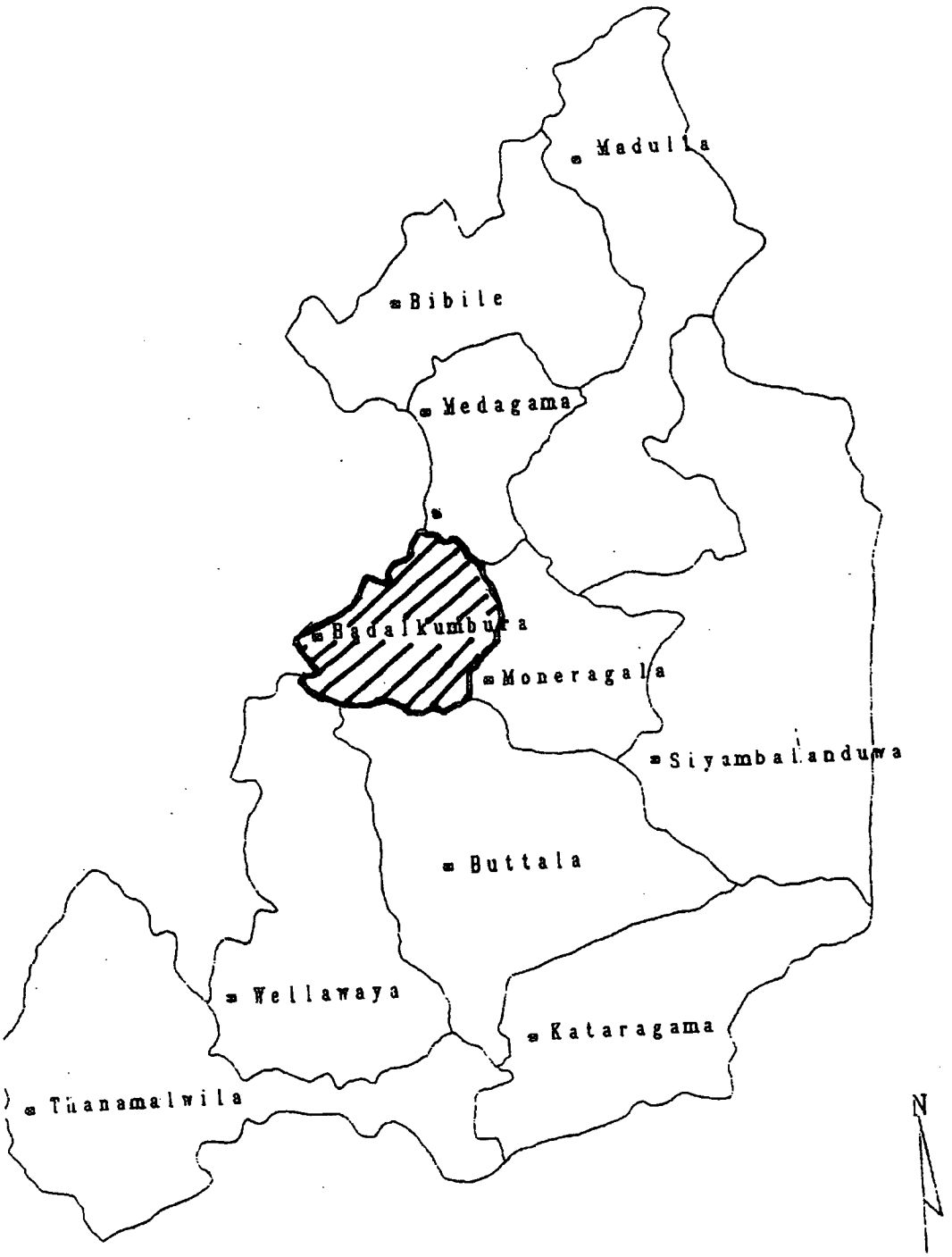
Uva Province and Monaragala District

Therrapahuwa G.S. Division is one of 42 administrative branches included within the Badulkumbura Divisional Secretariat division (See Map 4).
This division serves as one of ten larger administrative units within Monaragala (see Map 5) which is the second largest district in Sri Lanka and situated, along with Badulla district, in what is known as Uva province (see Map 2).

In ancient times, Monaragala belonged to the Kingdom of Rohana (or Ruhunu). At a time when Sri Lanka was rarely unified under the control of the Anuradhapura Kings and constantly under invasion, Ruhunu was: "the home of lost and potentially viable causes, the refuge of Sinhalese Kings overthrown by

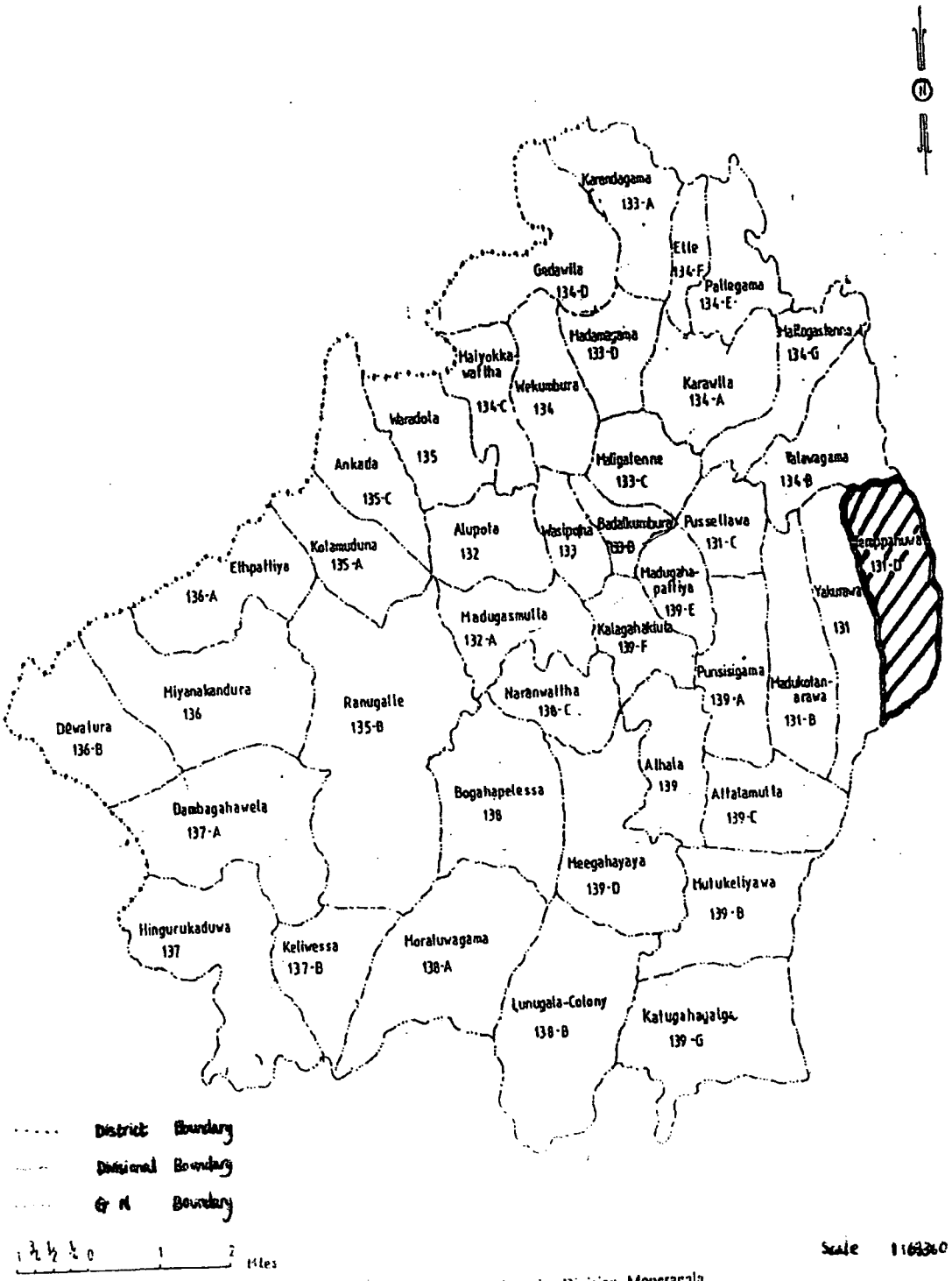
Map 3

Moneragala District – D.S. division



Map 4

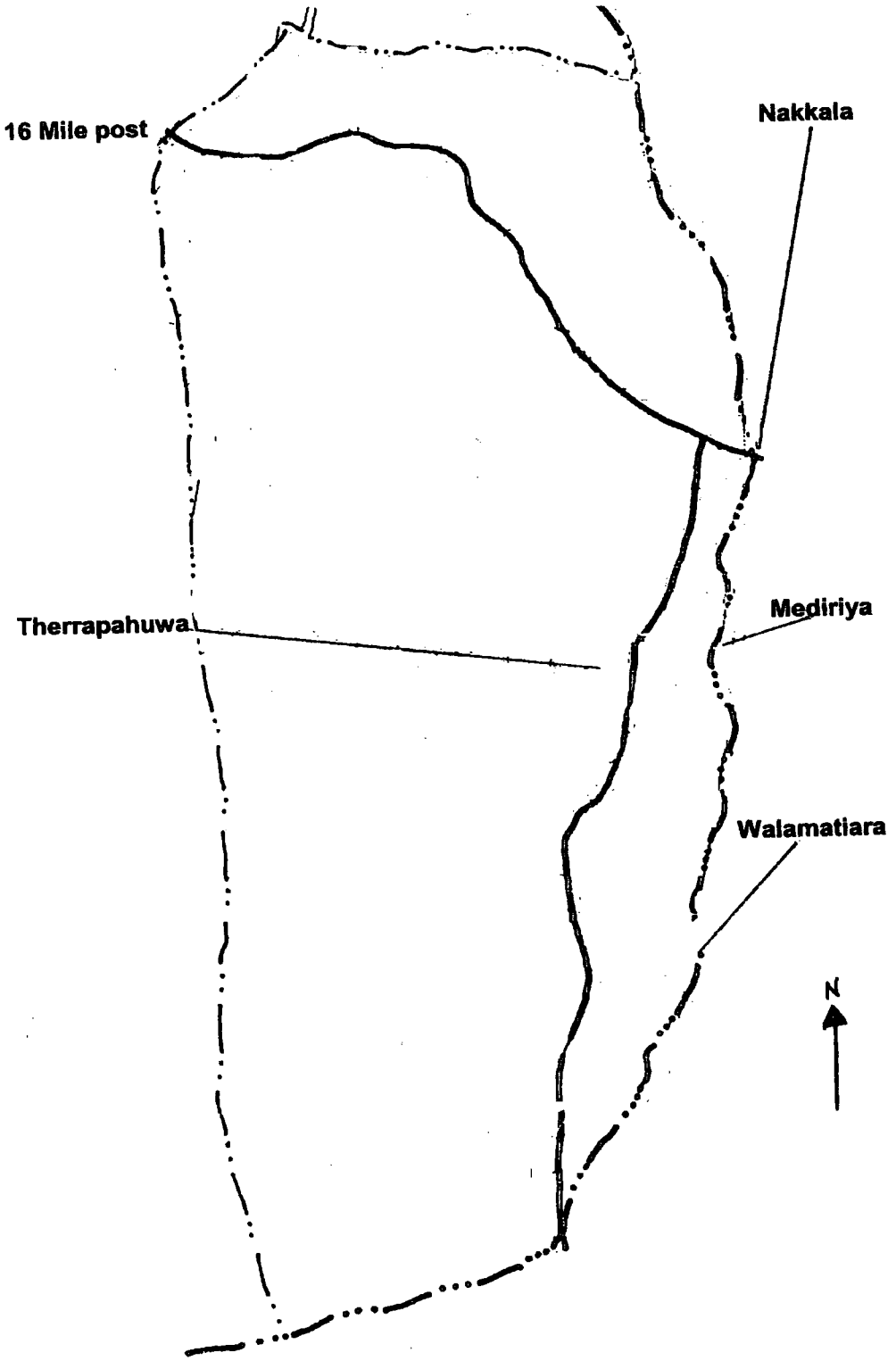
Badulkumbura D.S. division



Prepared by Land use Planning Division -Moneragala

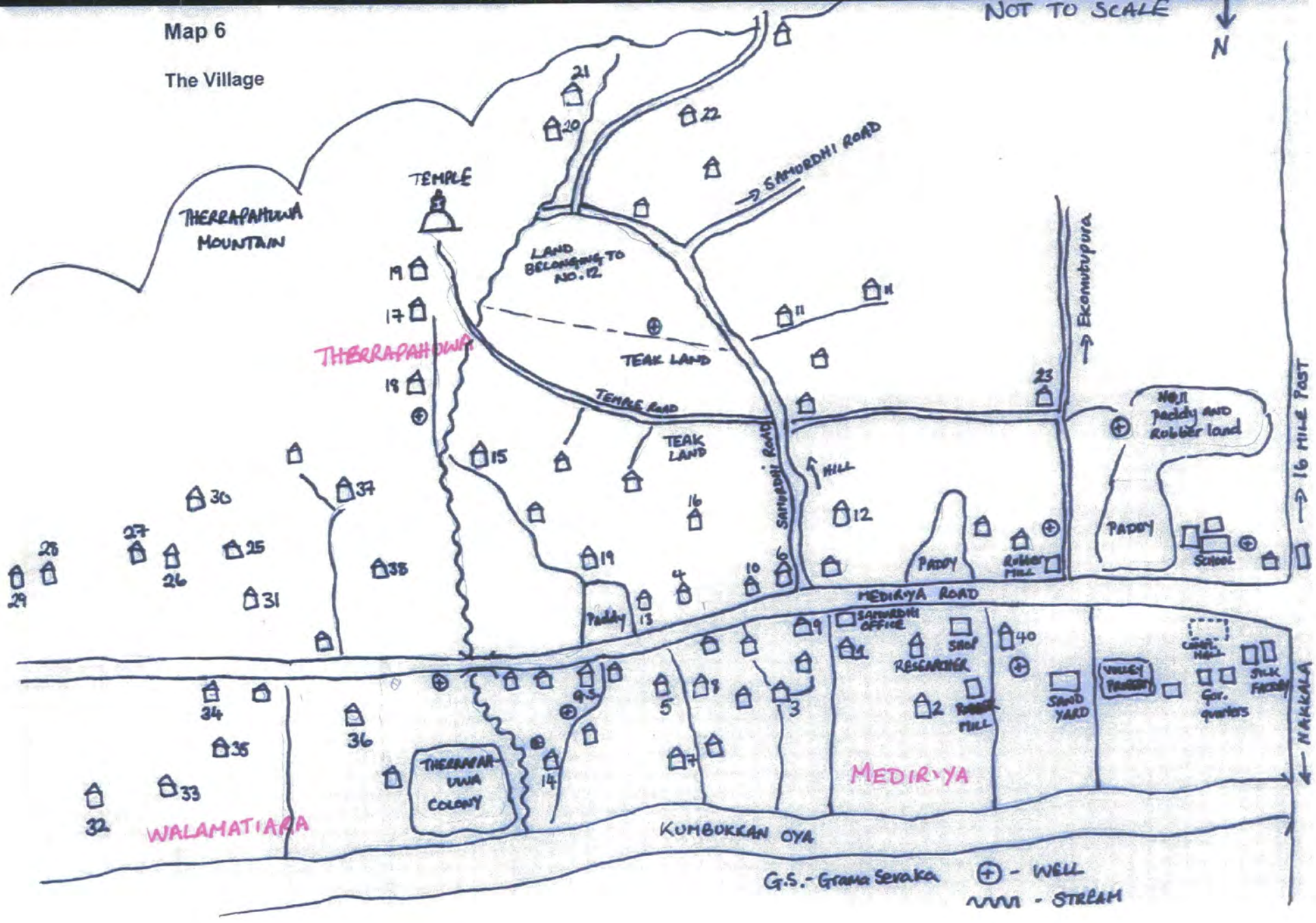
Map 5

Therraphuwa G.S. Division



Map 6

The Village



foreign invasions and a bridgehead for the re-conquest or the liberation of Anuradhapura from foreign rule" (De Silva,1981:22). Well known for its inaccessibility, a problem that persists even today, Ruhunu was nevertheless a bountiful province and Monaragala the centre of burgeoning civilisations dating back further than 2500 years (Baker,1998:18). Made up of a variety of agroclimatic zones, Monaragala was noted in ancient times for paddy cultivation irrigated by means of man-made lakes known as tanks. Indeed around the time of the reign of King Dutugämunu (161-137BC), [3] this area was known as Vellasse[4] meaning "land of a hundred thousand paddy fields" and in the seventeenth century Robert Knox noted:

> "The city of Badoula [Badulla] is built on a flat peece of Land than the rest [like an Iland] it standing in the midle of a large valey which they sow with rice...This city stands in the Kingdome or Province of *Ouvah* which is a Countrey well watered"(Knox, in Paulusz, 1989:26).

However, various battles took their toll on the region. Baker describes how a gradual decline set in by the twelfth century although the cause is not known (Baker,1998). Invasions from India, struggles over the unification of the island and conflict brought on by European aggressors led to the demise of this formally agriculturally developed province. Referring to Badulla, Knox describes how "The Portugals in time of war burnt it down to the ground" (Knox, in Paulusz,1989:26). Baker also reveals how, later on:

> "The strategy of people retreating to the Monaragala area to muster strength was used in 1818 against the British by a large army of Singhalese rebels. In that year the British dealt the latter a crushing blow. It is reported that many tanks and permanent crops like coconut and jack trees were deliberately destroyed in order to debilitate the area's function as a place of retreat and stronghold for rebellious inhabitants" (Baker,1998:19).

---

[3] See Appendix 1 for the story of Dutugämunu.

[4] Derived from Vellaksa- vella meaning paddy field and laksa the figure of 100,000. Notes that V is normally pronounced as a W.

In more recent times Monaragala, climatically divided between the dry and intermediate zones, has been described as one of the poorest and least developed regions of Sri Lanka. Its relative isolation and problems with malaria meant that the area was previously lightly populated compared to the overcrowded wet zone regions on the Western side of the island. There was a lack of public investment in irrigation but availability of land nevertheless attracted people. Farming practices were adapted to natural resource pressures. Moore *et al.* explain how people "were and remain largely poor family farmers, growing an extremely wide range of crops, but relatively little rice" (1995:1). Since 1981 the population has jumped by 60% (Wanigasundara, 1995:2), which now means that there is little land available. However, while Moneragala may be considered 'under-developed', the villages where I carried out research are fascinating examples of how rural Sri Lankan people are poor yet resourceful (often against the odds) and rich in knowledge.

The Villages

Kin relations and access to community facilities closely link the villages but they were established at different times. Villagers told me stories relating to each of these settlements, some of which I will outline here in order to provide context for a discussion of village life.

Therrapahuwa:

More sparsely populated than Mediriya and Walamatiara, Therrapahuwa is the oldest village and the least accessible. Visiting households requires the following of a dizzying array of dirt paths overshadowed by tall guinea grass or

timber fences. In most parts the land is rockier and at a higher elevation than the other villages. Access to water is limited to a stream that runs into the Kumbukkan Oya (River) and some sparsely dotted wells. Houses are set further apart than elsewhere. The village is dominated by two, thirty acre plantations owned by outsiders who grow teak for sale, and a fifteen acre plot held by one of the original settlers. Electricity is limited to three households situated on the newly bulldozed 'Therrapauhwa to 16 mile Post' road, recently renamed the Samurdhi road after the Samurdhi Bank[5] that funded its construction. Situated directly under Therrapahuwa Mountain is an ancient temple recently converted to a monastery and currently housing five monks (see Plate 1). Apart from religious activities, the temple hall is also used for community organisation meetings such as the Funeral Aid Society.[6] Local farmers in return for a small fee cultivate land belonging to the temple.[7]

Therrapahuwa has an interesting history. The current temple is reputedly based on the site of an ancient one and nearby is the ruins of what is believed to have been a tank (a man-made lake), perhaps evidence that the area was once under paddy cultivation. A legend told to me by a village elder, Mr Senanayake, involving Therrapahuwa takes us back to the time of Dutugämunu[8] when the Northern provinces of Sri Lanka were under the rule of the Tamil King, Elära.

[5] Samurdhi is a national programme to eliminate poverty in Sri Lanka with benefits ranging from Rs100 – 1000 per month, part of which come in the form of food stamps (Arachchi, 1998:29).
[6] Also known as Death Donation Society.
[7] At the time of my stay this had yet to be organised by the Temple Development Society.
[8] Dutugämunu's father, Kävantissa, ruled over the Kingdom of Magama (Mahagama) (for further details see De Silva, 1981:14).

Plate 1

Fig. 1.1: Shrine room containing a statue of Buddha

Fig. 1.2: The temple hall on *Poya* day. The villagers dressed in white are taking *Sil* (observing the eight precepts).

Whilst preparing for a war against Elära, Dutugämunu used the Kingdom of Rohana to cultivate food stocks so, with the help of his brother Saddhätissa, he made the region self sufficient in rice. He also spent a long time gathering a strong army. Mr Senanayake says: "He wanted a good army...he had ten giants because in those days they were dependent on strength. Today it is intelligence and arms...in those days, elephants or horses or carts and bows. Even to use a bow they should have been very strong, strength must be there".[9] *A giant named Terrapautthabyya was residing somewhere in Therrapahuwa. He had been a Buddhist priest. One day a giant messenger of Dutugämunu's was passing this way on the route to Mayangana fortress and he had to spend one night here. Usually visitors go to the temple. The giant messenger had plucked some coconuts from the temple garden by shaking the tree. He drank the water, ate the kernel and he was sleeping on a stone. The priest came and saw the giant. He held the messenger between his big and second toe and threw him about the place. Thus the messenger realised the might of Terrapautthabyya and persuaded the reluctant giant to join Dutugämunu's army. The campaign against Elära was victorious as Dutugämunu "accomplished what he set out to do, to establish control of the whole island" (De Silva,1981:16). It is believed that Terrapautthabyya returned to Therrapahuwa. During that time this whole region was fertile and prosperous.*

Much later, Therrapahuwa, now a remote jungle region, became the hiding place for some of those on the run from the British army after the rebellion of 1818. Baker describes how, "The battle survivors fled to the hills and became a timid, suspicious folk (*baiyo*), living in small pockets and doing slash and burn cultivation" (Baker,1998:19). An elderly villager, Sudu Menike, recounts how her ancestors were safe around Therrapahuwa Mountain because,

*"the only main road was this Nakkala road [*see Map 6*]...on this side there was no soul. They say it was so inaccessible, this jungle cover. No one dared enter the place after 4 o' clock... for wild elephants".* (pers.comm)

The village we know today originated some time in the early twentieth century.

[9] Kapferer describes the 'giants' as champions. An extract from his book *Legends of People, Myths of State* describes how: "Ten champions gather around Dutugämunu. Many of them have demonic, marginal characteristics...The first champion of the ten...Nandhimitta tears apart those...who desecrate Buddhist dagobas...As a boy he had the strength of ten elephants...The gathering of the champions is a building of destructive power, but a power to be directed at the state of Elära." (1988:59-60)

Mediriya:

Mediriya is the first of the three villages you come to when you turn off from Nakkala junction onto the Badulkumbura road (see Map 6). A dirt road named after Mediriya runs through this village and on to Walamatiara, terminating at Kumbukkuna junction. Access to water is largely through family wells and hand pumps (see Plate 2) whilst there are some households still using river water for household consumption. Electricity is available to households along the Mediriya road up to Therrapahuwa junction, the vast majority, however, having no access. Within Mediriya there is a school which has 1000 pupils, an ayurvedic hospital (not yet open), a sand business, two small rubber-processing mills (see Plate 3) and two boutiques. An abandoned shop serves as an office for the Samurdhi official who visits once a week. A midwife also uses the space fortnightly to weigh and check the health of Mediriya babies (see Plate 4).

Situated between the Kumbukkan Oya (River) and Therrapahuwa village, the amount of land (in acres) owned by each household and where it is located (i.e. fertile land near the river or rocky land near the mountain), depended on when the family first settled in the village. The families of the early settlers generally have the most land, which are in prime locations. Mediriya was initially established around fifty years ago. Due to the proximity of the river, this region was once known as the kingdom of elephants. Mutu Menike was one of the first to arrive with her husband. She tells how the region was densely covered with jungle trees[10] such as *Kon (Schleichera oleosa), Burutha (Chloroxylon*

[10] As I could not find the English translation for the names of these trees I have included the scientific names (Ashton *et al.* 1997).

Plate 2

Fig. 2.1: A family well.

Fig.2.2: A tube well

Plate 3

Fig.3.1: Rubber latex at the process plant. The mixture in the trays consists of 1 cup of acid, 1 jug of latex and 1.5 jugs of water

Plate 4

Fig. 4.1: The midwife sets up her weighing scales at the Samurdhi office.

swietenia), Kolon (Adina cordifolia), Mora (Dimocarpus longan) and *Karawala (Antidesma bunius).* They gave the area its original name 'Andiriya' which means dark. The first people to come were from surrounding areas, particularly Kolongastana (approximately 20km away), who, because of land shortage, had been using the region for *chena* or slash and burn cultivation to grow crops such as millet and maize. People had to carry their possessions there on their heads. There was no road and they could not use the river for fear of wild animals. Many people were afraid to come but fertile land was a strong attraction for some. By thirty to forty years ago a vast tract of the jungle had been cut down for farming. The jungle animals left except for the wild boar that live in the mountain forests, and the name of the village gradually changed from Andiriya to Mediriya.

Walamatiara

This village is the most recent of the three and furthest from the centre of commercial activity at Nakkala junction. To use any facilities, such as the school, shops and mills, villagers have to walk or cycle to Mediriya or Nakkala. For religious or community purposes most of the villagers go to the temple at Therrapahuwa. Electricity is not available and access to drinking water is limited to family wells. There is a communal well located on the boundary between Mediriya and Walamatiara but the water is rarely up to standard.

Also located between the Kumukkana Oya (River) and Therrapahuwa Mountain, this village is narrow. The name Walamatiara comprises three words. Wala which means, 'soil', mati which translates as 'clay' and ara meaning,

'stream'. It is a village dominated by clay soil, which craftsmen from nearby villages used to collect to make pots. The whole area was under secondary growth jungle[11] and remained uncultivated until the late 1960s. In 1967 the Government took a new approach to economic development and social welfare. De Silva describes how the Government launched: "the Sri Lankan version of a 'green revolution'... Senanayake... had a passion for traditional agriculture and regarded it as the key to the economic regeneration of the country" (1981:536).[12]

The land in Walamatiara was divided into allotments of 15 acres which were offered to 'middle class' people whose income fell within the range of Rs2000 per annum.[13] Conditions were attached to this offer. The land had to be fenced and cultivated. However, most of the middle class owners did not live on the land. Some hired labourers to cultivate it but they did not maintain the land and the scheme was a failure. Some years later, after a number of plots had been abandoned, the distribution was cancelled and 7.5 acres re-alienated, again to middle class people. Today the land has largely been settled in Walamatiara. Some settlers are middle class landowners but most are squatters or encroachers, many of whom have since been given a land permit.

Sri Lanka and Politics – A Brief Overview

It is well known that Sri Lanka has had a long and often tumultuous, history (see, for example, De Silva, 1981), resulting in a strong nationalistic movement,

[11] In a bid to colonise the land the Government offered huge tracts of land indiscriminately. This offer was taken up by 'business men' who cleared the area of valuable timber and left (see Chapter 4).
[12] Dudley Senanayake was Prime Minister from March 1965 to May of 1970 (De Silva, 1981).
[13] Today £1 is equal to approximately 110 rupees.

which has developed over the twentieth century. A brief overview of recent concerns with the underlying causes of the ethnic troubles between Sri Lanka (Sinhalese population represented by the ruling party) and the Tamil separatists, the Liberation Tigers of Tamil Eelam (LTTE), and the rise of nationalism will serve to inform our understanding of rural development policy and practice. As Moore points out, "Understanding the political angles will continue to be the key to analysis of most dimensions of economy, society and culture in rural Sri Lanka" (1992a:39).

Johnson and Scrivenor note that the intensity of the ethnic problem lies in the severe competition for economic opportunities between the nation's elites (1981:24). Briefly, the JVP (Janatha Vimukthi Peramuna) revolt in 1971, led by a largely educated and unemployed Sinhalese youth, highlighted the growing problems of "stagnant opportunities as a result of the economy's poor performance" (Alailima, 1997:151). Thus, the burgeoning numbers of rural Sinhalese youth, who had benefited from free education and expected to climb the social ladder[14] ended up unemployed while the small number of job opportunities were largely controlled by politicians. In addition, there was a widespread belief among the Sinhala youth, that their access to coveted professional courses in University, such as medicine and engineering, were restricted by discrimination towards the Tamils (ibid:152). Tambiah highlights how the Sinhalese and Tamils bickered over two major issues:

> "First was the issue of the rights of the majority community to dominate the [parliament] versus the minorities' demand that special provisions be

[14] Alailima states: "Educational facilities were made as widely available as possible, so that those with ability might compete for the best jobs, irrespective of their background. The original emphasis of the education system [was] on general literacy and turning out persons for middle-class occupations" (1997:145).

made for their representation in order to protect their interests. Second was the issue of the criteria for recruitment to public service... The Sinhalese politicians frequently accused the Tamils in terms of 'race' and in relations to their number in the population of being over-represented in public service, while the Tamils argued for open recruitment on the basis of technical qualifications and competence. Against the Tamil defence of meritocratic principles, the Sinhalese offered objections of unfair educational advantage" (1992:11).

The insurgency of 1971[15] only lasted three months but it was enough to influence a change in government policy, which was to have serious consequences for ethnic relations. Alailima explains:

"To reduce the alienation of the educated Sinhala youth, the government also experimented with various formulae to ensure that a politically acceptable proportion of Sinhala students got admission into Universities... A determined effort was made to implement Sinhala as the sole official language. The rise of the militant Tamil youth movement in the country can be traced to these moves. The disgruntled Tamil youth saw their traditional avenue of socio-economic betterment and their future prospects being severely limited by these policy measures... Thereafter, the competition for resources was translated into ethnic terms, on a rising tide of violence" (1997:152-153).

A large majority of the Sinhalese-speaking population are Buddhist. In 1975 Robinson noted that, "Nearly 70% of the inhabitants of Sri Lanka are Sinhalese-speaking Theravada ('pure') Buddhists" (p.1). Estimations have more or less stayed the same since then. It is perhaps interesting to observe the impact that modern Buddhism has had (albeit indirectly) on rural development. For example, a strand of 'militant' Buddhism emerged at the end of the nineteenth century led by influential monks and lay people, concerned with the threat to Sinhalese Buddhism from Tamil Hinduism and European Christianity (see Gombrich and Obeyesekere, 1988; Tambiah, 1992). Buddhism became politicised and in turn

[15] There was another JVP insurgency in the early 1990s which will be discussed later on in this chapter.

shaped the future of Sri Lankan politics. Tambiah explains how 'political' Buddhism,

> "[appealed] to the past glories of Buddhism and Sinhalese civilisation celebrated in the *Mahavamsa* [16]and other chronicles as a way of infusing the Sinhalese with a new nationalist identity and self-respect in the face of humiliation and restriction suffered under British rule" (1992:7).

While the Veddahs are considered to be the first inhabitants of Sri Lanka, Kapferer (1988) highlights the role of historical myths in the propagation of Sinhalese nationalism whereby myths have become historical fact and interpretations of myths, those involving Vijaya and Dutugämunu for example, are vital to the perpetuation of ethnic consciousness. He believes that:

> "Sinhalese nationalism is constructed out of its myths of history and the deeds of its heroes, wherein Tamils threaten to destroy or subsume Sinhalese but are themselves destroyed or conquered...These ideas are integral to the modern social and political practices of nationalism in Sri Lanka...the logic of the myths is deeply ingrained in the practices of everyday life" (ibid:2 & 34).

The Vijaya legend tells the story of the origin of the Sinhalese people:

> *"It tells of an unruly Prince, the eldest son of twins, themselves the offspring of a union between a lion and the errant and wandering daughter of the King of Vanga in India. Vijaya, because of his unruly and destructive behaviour, is banished from India by his father, Sinhabahu (lion-arm). It is from him that Sinhalese claim their name-people of the lion. After various misadventures Vijaya and 700 male companions arrive on the shores of Lanka. Here they encounter the yakkas (demons) whom Vijaya slaughters with the aid of a demoness, Kuveni. Vijaya abandons Kuveni, who is his lover (wife) and established a new order and various settlements in Lanka. He then marries his men to women brought from India himself consecrating an Indian princess as his queen, and established the Royal line of Sinhalese Kings" (Kapferer, 1988:34).*

Kapferer explains how the Vijaya and Dutugämunu (see Appendix 1) legends recorded in the Buddhist Sinhalese chronicle, the *Mahavamsa*, are "among the

[16] The *Mahavamsa* and *Dipavamsa* are, according to Kapferer (1988), chronicles of Sri Lanka written by monks in the fourth and late fifth century AD. The *Culavamsa* continued on from the *Mahavamsa* (De Silva, 1981).

most common themes of political rhetoric of modern Sri Lanka" (ibid:34). Thus, modern Sri Lankan Buddhism has become entwined with politics as the clergy exerts pressure on Sinhalese politicians through accusations of 'failing to look after Buddhism' (ibid). Tambiah stresses how, "Buddhism as a collective and public religion was interwoven with the changing politics of the island and...that meshing contributed to ethnic conflicts" (ibid:3).

The Political Environment in Moneragala

Research into village life must take into consideration the wider political structure that encloses the village as well as the effects of the current civil war and also the recent history of violence in Sri Lanka. Apart from the agony of on-going civil war, the most recent trauma in village memory was the JVP (Janatha Vimukthi Peramuna-the People's Liberation Front) insurgency of 1987-1990. This second insurgency (the first occurring in 1971), another effort to achieve state power through force, came about almost as a by-product of the Sinhalese-Tamil conflict. Alilima (1997) highlights how the government signed an agreement with India in 1987 in which Indian troops were installed to control Tamil militant groups. The Island-wide backlash against this agreement was rooted in a "carefully nurtured collective Sinhalese paranoia about Indian expansionism and the vulnerability of Sri Lanka to betrayal by leaders who were not genuine Sinhalese Buddhists" (Moore, 1993:613). Moreover, discontent with the Indo-Sri Lanka Agreement provided the JVP with an opportunity to gain enough popular support to strike out again against the government, a response which seriously affected both the economy and society. As Simpson points out:

> "The years 1988-90 were undoubtedly a period of terror... throughout the south of the Island. There appears to have been a virtual breakdown

> of civil society at the hands of a small group of insurgents to whom the government responded with brutal and indiscriminate ferocity... The tendency to withdraw into the home rather than participate actively in the wider community is hardly surprising given the fear and suspicion that seem to have undermined everyday social interaction throughout this period" (1997:52-53).

The villagers in Moneragala did not escape intimidation and I was told of how local 'thugs' had 'jumped on the bandwagon' terrorising the region. Many people I talked to were unsure whether to openly discuss how they had been affected by the actions of the JVP insurgents and violent reprisals by the security forces, as some of the 'suspected' key players in the violence were still living in the district. Nevertheless, various accounts would crop up in conversation throughout my fieldwork giving an indication of the traumatic impact this insurrection had on the lives of the villagers. Men and boys hid in the jungle at night fearing that JVP mobs would come and take them away. Most at risk were households who had a relative in the police or army. Held at gunpoint, villagers would be given a deadline to persuade their family member to abandon the security forces or face death. At the same time JVP members would also hide in the jungle from the security forces. No boys from Therrapahuwa division were killed but the charred remains of murdered youths from other villages would be found abandoned in Nakkala. Moreover, several suspected JVP supporters from the area were abducted in this period and never returned.

People were robbed, businesses were looted and local societies (such as the Funeral Aid Society) were emptied of funds. Farmers were discouraged from cultivating. Those who did cultivate and manage to sell their produce would often receive a visit from the JVP in the dead of night and be expected to hand

over the money. In addition, most households would receive regular visits at night from JVP members demanding cash or other valuables. The schools were shut down and villagers were forbidden to leave the house except when forced to attend JVP meetings. They had to live in darkness once the evening came. One villager told me:

"We could not walk down the path. If we were ill we did not get medicine. Why? We were frightened. We had vegetables but we could not sell. (Researcher: Why?) *We could not go to town. JVP said we could not walk, we had to stay at home. Salesmen did not come, shops were closed. We could not use lamps. We were not independent people. The JVP and the Government were fighting. Who died I do not know".*

The civil war continues to infringe on people's freedom and independence, not only through the presence of the army at the many checkpoints[17] in towns and along roads, but also because the casualties of this war are the sons, brothers and husbands of ordinary villagers.

These experiences have most certainly contributed to the general level of mistrust and suspicion in the village, which will inevitably have an impact on current development efforts aimed at ensuring sustainable intervention through participatory methods. Sri Lanka has evolved into a society in which politics seeps into many aspects of daily life. Moore states that: "Among the Sinhalese, in particular, politics is seen as one of the major routes to individual success in life. The villager's interest in politics is typically obsessive" (1992:30). During my fieldwork, the village was predominantly in support of the ruling Peoples Alliance Party. Aside from heated discussions about party issues in the evening and a few scuffles at Nakkala junction during the elections of 2000, it initially

[17] A typical bus trip to Moneragala town from Nakkala junction, a distance of about 8 miles, requires you to go through two checkpoints. You have to get off the bus and file though a hut where an officer will check your identification, your person and your belongings.

seemed that politics had little to do with day-to-day activities in the village. Yet, as I make clear in this thesis, life in Sri Lanka can be heavily politicised, particularly in relation to village organisations and rural development opportunities.

The Villagers

When using the term 'household' in my discussion of life in these villages, I intend it to mean a "central economic unit" (Lindberg,1996:32) involving kin and in particular parents, children and grandchildren. Lindberg states that there are a number of theoretical and empirical problems associated with defining 'the household' and warns that, "the two concepts of family and household must not be confused [as]'household' does not automatically imply kinship" (ibid). Throughout my study I found that most households comprised of nuclear families. There is regular interaction with children and other relatives living away from the household. However, unless they were considered to still be living at home (as in the case of those in the army, police force or working in local garment factories), regularly visited and contributed to the pool of resources, I have not included them in my definition of a household.

After trial and error, I regularly worked and interacted with forty households (see Table 1). Some householders were interviewed more intensively than others for several reasons. Gender and age, as well as the fine line between investigation and intrusion, were influential. My selection depended ultimately on who was willing to tolerate my presence although other variables played a role. I tried to

Table One
Sample Households

W = Walamatiara, T = Therrapahuwa, M = Mediriya

Household	Heads of the Household		Children at home		Livelihoods	Land size (acres)
	M	F	M	F		
1 (M)	√	√	2	0	**Farming** Both sons are in **school**	8
2 (M)		√	2	0	**Farming** Eldest son is a **gem trader** Youngest son works in the **Samurdhi bank**	4
3 (M)	√	√	1	3	**Farming** One son is in the **army** One daughter is a **civil servant** One daughter is in **training** One daughter is in **school**	3
4 M)	√	√	1	2	**Farming** One daughter is a **civil servant** One son is in the **police force** One daughter is **unemployed**	7
5 (M)	√	√	1	4	Male head is a **labourer** Spouse part-time **trading** in vegetable Three daughters in **school** (one boarding in a deaf/blind school) Son (10 years old) has **stopped** going to **school** One daughter (also deaf) is an **infant**	0.5
6 (M)	√	√	1	4	**Farming** Son, daughter-in-law and two granddaughters **unemployed** One daughter is in a **factory** Grandson is in school	3
7 (M)	√	√	2	3	Heads **farming part-time** Son **farming full-time** Head is a **middleman** One son is in **training** Three daughters in **school**	5
8 (M)	√	√	1	2	**Farming** Head in **gem-mining** team during the dry season All children in **school**	1.5
9 (M)	√	√		2	Male head is in the **police force** Spouse **farming**	3
10 (M)	√	√	3	1	Male head is a **labourer** Spouse **farming** Two sons **farming** Daughter **farming** One son is in **school**	5 (approx.)

11 (M) Two house-holds	√	√	2	1	**Farming part-time** Two male heads (one male head not married) **gem-mining** Wife of one male head working in the Middle East as a **maid** Mother living with single male head in one of the households- **retired** Sons in **school** One daughter is an **infant**	4 (appr ox.)
12 (M)		√	0	1	Female head is **retired** (hires labourers to work the land) Daughter is a **civil servant**	23
13 (M)		√	1	1	**Farming** Head officially **retired** but makes baskets for sale periodically Son also practices **indigenous medicine**	5
14 (M)	√	√	2	2	**Farming** One son is in the **police force** One daughter is in **school** One daughter is **unemployed**	3 (appr ox.)
15 (M)	√	√	3	1	**Farming** Head is a part-time **builder** and hires his bulls out for ploughing One son in the **army** One son and daughter in **school** One son **unemployed**	3 (appr ox.)
16 (T)	√	√	1	2	**Farming** and **watch over** one of the large teak plantations Two daughters work in a **factory** One son **unemployed** – disabled from a gunshot wound	5
17 (T)	√	√	2	2	**Farming** One daughter works in a **factory** Two sons in **school** One daughter is **unemployed**	4
18 (M)	√	√	1	1	**Farming** Son is **training** One daughter is in **school**	4
19 (T)	√	√	2	1	**Farming** mainly by female head although male head is in charge of paddy Male head is a **middleman** (banana) All children in **school**	2
20 (T)	√	√	0	0	Male head is a **tailor** and **makes brooms** Female head – **livestock (milk)**	5
21 (T)	√	√	1 (plus wife)	0	Male head and son **gem-mining** in dry season Making and selling **bricks**	4
22 (T)	√	√	2	5	**Farming** Male head part-time agricultural **labourer** One daughter is in **training** All the children are in **school**	4
23 (M)	√	√	2	1	**Farming** Male head is a **middleman** (brinjal)	3

24 (M)	√	√	1	1	**Farming** (part-time) Heads own a **rubber mill** Son is a **teacher** at Mediriya Daughter is in **training**	3
25 (W)	√	√	1	1	**Farming** Head in **gem-mining** team during the dry season Son is in **training** Daughter is in **school**	2
26 (W)	√	√	3	1	**Farming** – heads of the household and three sons **Daughter is in training**	4
27 (W)	√	√	0	2	**Farming** Hires out bulls for **ploughing** Sale of **milk** Two daughters are in school	2
28 (W)	√	√	1	2	**Farming** Male head is officially **retired** from the civil service One daughter is in **training** One son is in the **army** One daughter is in **school**	3
29 (W)	√	√	0	2 plus 2 grand-daughters	**Farming** (part-time) Male head – village **astrologer** Female head – **healer** One daughter **training in astrology** Two granddaughters in **school**	2
30 (W)	√	√	2	2	**Farming** Hires out bulls for **ploughing** Sale of **milk** One daughter is in **training** Two sons and one daughter in **school**	9
31 (W)	√	√	0	4	**Farming** Three daughters in **school** One daughter **unemployed**	7
32 (W)	√	√	1	4	**Farming** One daughter **sales assistant** One daughter is in **training** Son and two daughters in **school**	7
33 (W)	√	√	0	0	**Farming** Head officially **retired** (from farming)	8
34 (W)	√	√	1	1	Male head is the **manager of co-operative society stores** Female head is an **English teacher** Son and daughter (disabled) are in **school**	8
35 (W)	√	√	Son-in-law	1 plus grand-daughter	**Farming** (son-in-law) Male head officially **retired** from civil service Daughter in **civil service** Granddaughter is an **infant**	30
36 (W)	√	√	Grand son	1	**Farming** (part-time) Female head and daughter are **labourers** Grandson is in **school**	2

37 (W)	√	√	2	1	**Farming** Two sons and daughter are in **school**	7
38 (W)	√	√	3	1	**Farming** One son is **unemployed** Two sons are in **school** One daughter is an **infant**	3
39 (W)	√	√	1	4	Female head is the *Grama Sevaka* of Therrapahuwa division Male head is the *Grama Sevaka* of another division Son and three daughters are in **school** One daughter is an **infant**	2
40 (W)	√	√	0	0	**Farming**	2

include a range of male and female headed households, although the majority were male. The female-headed households had mostly suffered the loss of the male head. However one family was in an unusual position, the female head having polygamously married her elder sister's husband who lived permanently with the elder sister. Thus, she primarily cared for her family. Variations in the number, age and sex of children were considered as well as kin ties. Some households depended entirely on farming whilst others had members in paid employment. Size of land holdings, location and cultivation choices were also important factors as well as accessibility to markets. Thirty of the households currently cultivate rubber plants, which are at varying stages of development and planted with different intercrops. This was an important consideration for the DFID project. As part of my role in the project was to provide a detailed study of rural village life, in addition to learning how to farm, it was also necessary to understand the significance of social networks and belief systems, particularly as these might influence the choices that people make on a daily basis.

Networks of Kin

Brow highlights how, "social relations within the village were governed by norms of kinship that stratified its inhabitants by age and gender but also sustained a strong sense of shared identity" (1988:312). While increased intrusion of the State in village affairs since the 1950s have slowly eroded traditional forms of social cohesion, family ties form an important 'safety net' (social capital - see Chapter 5). A brief explanation of kinship terms, marriage rules and caste

names will provide a useful insight into the relationships that exist within these villages for Leach makes the point that:

> "Kin groups do not exist as things in themselves without regard to the rights and interests which centre in them. Membership of such a group is not established by genealogy alone. Properly speaking, two individuals can only be said to be of the same kinship group when they share some common interests – economic, legal, religious as the case may be- and justify that sharing by reference to a kinship nexus" (1961:66).

There are a number of kin terms that can also be extended to strangers and friends, as it is considered distant and rude to call someone by their name. It is especially impolite to call an elder by his or her name although this can be done amongst equals with a Mr or Mrs in front. Using kinship terminology is better. In Table 2 I list the following addresses that I observed being used in the villages:

Table 2: Kin terminology used in a Sri Lankan Village[18]

Sīya	Grandfather	*Achchi/Attamma*	Grandmother
Tātta	Father	*Amma*	Mother
Loku appa	Father's older Brother	*Bappa*	Father's younger brother
Loku amma	Mother's older sister	*Punchi amma*	Mother's younger sister; Father's younger brother's wife
Māma	Mother's brothers	*Nānda*	Father's sisters
Aiya	Older brother; Older male parallel cousin	*Malli*	Younger brother; Younger male parallel cousin
Akka	Older sister; Older female parallel cousin	*Nangi*	Younger sister; Younger female parallel cousin
Massinā	Brother-in-law; Male cross cousin	*Naena*	Sister-in-law; Female cross cousin
Putha	Son or nephew	*Duwa*	Daughter or niece
Baena	Son-in-law; Niece's husband	*Lēli*	Daughter-in-law; Nephew's wife
Munubura	Grandson or	*Minibiri*	Granddaughter or

[18] Spellings were checked with reference to Baker (1998).

	great grandson		great granddaughter

We can see that maternal aunts and paternal uncles are considered to be extensions of Ego's mother and father and their children (parallel cousins) are addressed as sister and brother. Marriage taboos exist and although not common today, bilateral cross-cousin marriages were preferred in order to maintain relationships and keep wealth within the family (Baker,1998:82). Leach believes that:

> "The concept of descent and of affinity are expression of property relations which endure through time. Marriage unifies; inheritance separates; property endures. A particular descent system simply reflects the total process of property succession as effected by the total pattern of inheritance and marriage" (1961:11).

Currently, arranged marriages (see Plate 5) are preferred and are usually patrilocal *(diga)*. Robinson notes that:

> "A *diga* union is usually described in the literature as one in which the wife moves to her husband's house, bringing with her a dowry,[19] ideally of moveable goods. She then has no further claim to inheritance other than maintenance, should this become necessary. In an uxorilocal (*binna*) marriage, however, the wife inherits the house and land; in return for living with and working for this wife's family, her husband enjoys the use of her property" (1975:49).[20]

Traditionally then, marriage bonds have been important in Sri Lanka and the diverse kinship terms reflect this (Baker, 1998).

In the villages, family ties are very strong although in Walamatiara there are only a few households related to families in the older villages. The majority are 'outsiders' who came during the allotment scheme in the 1960s or later, illegally buying or encroaching on land. Diagram 1 and 2 show that within Mediriya and

[19] However, Baker (1998) maintains that elopement is especially popular in the villages where families are unable to afford dowries.
[20] This type of arrangement can be found in Household 34 and 35.

Therrapahuwa there are several key families linking many households through affinal and consanguinal relations. Networks of kin relations as well as other associations are an important component of village life and ones that must be considered when analysing the significance of local knowledge (Chapter 3) and livelihood strategies (Chapter 4).

Caste

With a few exceptions the majority of households have the *Vasagama* or 'surnames' (passed down through the father's blood line) of *Rathnayake Mudiyanselage* or *Herath Mudiyanselage*. These names indicate that the villagers are of the *Goyigama* or cultivator caste, the highest caste in Sri Lanka after the royal caste which no longer exists (Baker,1998:159). *Rathnayake* and *Herath* indicate that they had high positions under the last Kandyan Kings, *Rathnayake* standing for gem businessman and *Herath* protector of the King (Mr Danapala, pers.comm.). *Mudiyanselage* also implies high officialdom during Kandyan and British rule.

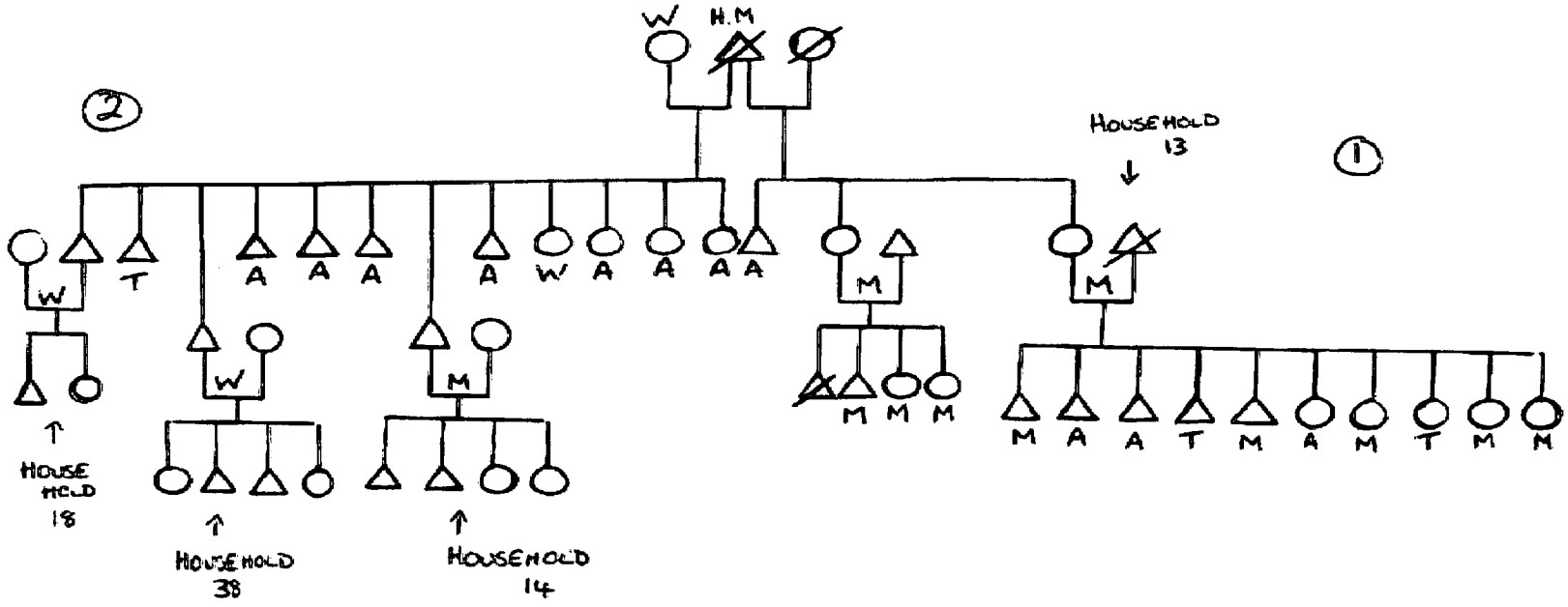
Throughout the period of Kandyan feudalism, there was an association of land tenure with a system of endogamous service tenure known as *Rājakāriya* or duty to the King (Gunasekara,1994:10). It fostered a complex system of labour specialisation which operated without the use of money (De Silva,1981:147). As De Silva explains, "Every separate craft had its own headman and all the craftsmen held land in return for the services they rendered so that the craftsmen like everyone else were cultivators but provided the specialised

Fig.5.1: The bride and bridegroom are standing on the *magul-poruwa* (a special platform). The bridegroom places a gold chain around the brides neck.

Fig.5.2: The bridegroom wraps a white cloth around his bride symbolising his taking charge of the woman.

Diagram 1

A family in the village



Key: M = Mediriya T = Therrapahuwa W = Walamatiara A = Away

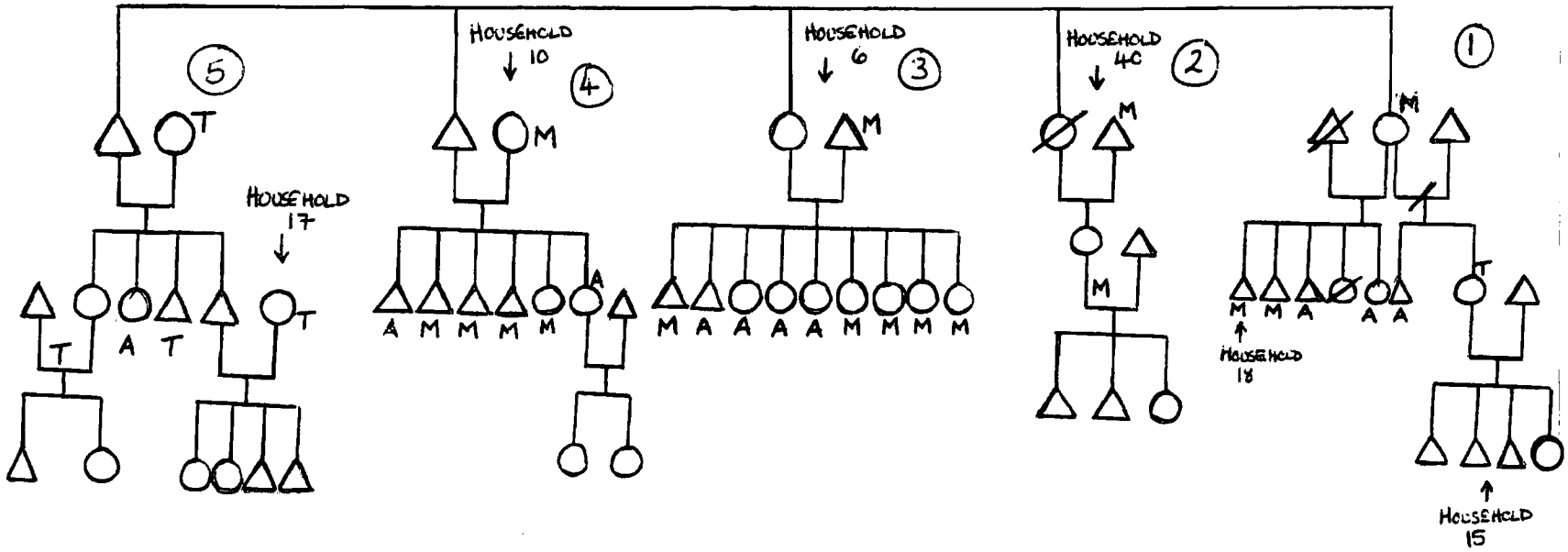
This diagram is a small example of how some of the households in my sample are related and also where they are located in the villages (see Map 6). The patriarch's *vasagama* name, H.M. was passed on to all his children.

(1) Only two out of the ten children from Household 13 still live at home. Eight of the children are married and have families of their own. The sister of the female head in Household 13 lives opposite her but the brother has been committed to an asylum.

(2) All but two of the children from the patriarch's second marriage are also married with children. I have only given a few examples. Interestingly the female head from Household 18 is the sister of the female head from Household 7. There are many such connections within the villages.

Diagram 2

An example of households that are connected through kin



Key: M = Mediriya T = Therrapahuwa W = Walamatiara A = Living away

This diagram is a small example of relations from one of the original families to move to Mediriya.

(1) All of the children (except one daughter who was murdered) are married with families of their own.
(2) The female head of Household 40 recently died of cancer. She only had one daughter who lives on the same compound and whose husband is in the army.
(3) The male head of Household 6 is also part of a large family located primarily in Mediriya. Both sons and four of the daughters are married with families of their own.
(4) Three sons and one daughter live at home.
(5) All sons and daughters are married with children. I have provided two examples.

service demanded of their caste" (ibid). These craftsmen included, "fishermen, soldiers, cinnamon peelers, toddy tappers, tailors, laundry washers, potters, barbers, keepers of the sacred Bo tree, drummers, bearers of the King's palanquin, dancers, mat weavers etc." (Baker,1998:159). However the *Goyigama* caste (along with its sub-castes) were privileged because, "since the entire population lived in part by farming and everyone had a share of the land, it was the *Goyigamas* exemption from 'professional' services as craftsmen and artisans that set them off from other castes." (De Silva,1981:147). Nevertheless, Leach highlights how the economic roles on which caste was based were abandoned after the feudal hierarchy was abolished in the 1830s and "since that time most of the castes have ceased to serve any political or economic function" (1961:68).

Most people in the villages claim that the caste system is not in operation today or even considered in marriage proposals. One villager, a retired Government official, stated that, "*in those days caste and age mattered but nowadays employment matters especially if the man is in employment...family background is also looked at*". Gunasekara points to the occupational sphere where caste segregation has diminished stating:

> "There are two reasons for this. Firstly the attenuation or commercialisation of caste occupations and secondly the democratisation of white collar jobs...such jobs rest on educational attainment and/or political connection rather than high caste status" (Gunasekara,1994:103).

I had heard of businessmen in Nakkala who had legally disassociated themselves from their 'luggage-carrier' caste name. However, the subject was always abruptly dropped when I asked questions about it, perhaps indicating a

continued sensitivity towards the stigmatisation of the caste system and possible discrimination.[21]

Buddhism in the Villages

Most people in Mediriya, Therrapahuwa and Walamatiara are Buddhist. Only one person in my sample was a Christian. There were no Muslim or Tamil people living in the villages although Tamil labourers were hired to tap rubber trees and Muslim traders would periodically pass through. In 1961, Leach pointed out that:

> "There may be very great differences of language, religion and caste... Yet in any one village the population is ordinarily homogenous... The Sinhalese as a whole, the Tamils as a whole and the *Moslem Marakkal* as a whole, are members of different societies. Their interrelations with one another are kept to an absolute minimum... Tamils and Moslems often own shops at which Sinhalese peasants trade, Sinhalese peasants sometimes hire individual Tamil labourers, but relations seldom get closer than that. Such cross-cultural relationships as exist are almost exclusively economic" (p.22-25).

In Moneragala, it did seem that Buddhists, Tamils and Muslims tended to reside in separate villages, each area being easily recognisable by the presence of a synagogue, Hindu temple or Tamil school. Buddhism plays an important role in the lives of the villagers. However, the 'ideal' form[22] of Buddhism is often quite different from reality in Sri Lanka. Southwold claims that:

> "Buddhism is not a product of village life, and while it is of course adopted to meet the needs and conditions of the lives of villagers, its social significance to them is not primarily to reflect or endorse the social

[21] Interestingly, one villager elder who pointed out that caste was not so important these days was still concerned that I should know that his initials, B.G., did not indicate that he was of a low caste but, as he came from the Kandyan area, it referred to his *gedara* (house) name. A more detailed explanation can be found in Obeyesekere, 1967 and Robinson, 1975.

[22] Southwold does point out that 'true' Buddhism was "largely the product of mainly western scholars, in the late nineteenth and early twentieth century; from them it had passed, directly and through various channels of popularisation to form the standard view of Buddhism of most western people..."(1983:3).

> structure of the village. On the contrary, its symbolic significance is rather to express the fact that its practitioners are not villagers merely, but members of a grander society and civilisation" (1983:20).

I witnessed many activities in the village that were linked to Buddhist belief. For example, the notion of *pin* or merit is attached to ethical conduct and the villager is always aware of the need to 'collect' merit, which is associated with the law of karma and rebirth. Simply put, the condition of life that one is reborn into can depend on the meritorious (or evil) deeds done in a previous life (ibid:48).

However, as Southwold is quick to point out, the practicalities of everyday living sometimes outweigh attempts to follow Buddhist doctrine. He states:

> "[The] first precept is not to kill animals...Now Buddhists are not daft: they do kill when they have too. They do, for example, use insecticides on their crops, though still with a certain remorse and sadness, knowing they must do it if they are to eat" (ibid:66-67).

I was initially surprised to find, on arrival to Sri Lanka, that Buddhists ate meat. The favoured dish in the village is chicken (although perhaps because it is cheaper and more readily available), but villagers will not be seen to take part in the slaughter of any animal.[23] On a *poya* day (a Buddhist holy day that occurs on full moon) meat is definitely off the menu as villagers try to adhere as closely as possible to the precepts.[24] One villager mistakenly invited Gavin and I for lunch on *poya* day and subsequently agonised over the fact that she would not be able to prepare a meal with meat or eggs. However, she cleverly overcame

[23] When the Muslim traders passed through the village they usually bought cattle off the villages to be slaughtered. A colleague told me that rather than publicly acknowledge the transaction, villagers would pretend that the cow had run off.

[24] Primarily eight precepts such as: 1. Abstain from taking life. 2. Abstain from speaking unnecessarily. 3. Abstain from sexual activity. 4. Abstain from stealing. 5. Abstain from taking intoxicants. 6. Abstain from taking meals at inappropriate times. 7. Abstain from dancing and singing and use of beauty products. 8. Abstain from seating on high (luxurious) chairs or beds.

this envisaged problem by asking Gavin, a Christian, to place the eggs in boiling water, thereby absolving her of any guilt.

A great deal of life in the village has some association with Buddhism. Most houses have a small shrine dedicated to Lord Buddha which can consist of a small shelf holding coconut oil lamps, flowers and incense and with a picture of Buddha above it (see Plate 6).[25] Children are taught the Buddhist precepts and told stories at school[26] and often participate in Buddhist ceremonies with their families. In 1975 Robinson claimed that, "On full-moon days (poya) most people refrain from working and many of the old people observe the eight precepts (*ata sil*), involving fasting and meditation" (p.35). Times have changed and on this day each month I often observed people working in their fields. Nevertheless, the older generation would go to the temple on *poya* day to observe *sil* (the eight Buddhist precepts), often taking their grandchildren along with them (see Plate 1). Major Buddhist holidays such as Wesak *poya* (the anniversary of the birth, enlightenment and death of Buddha) and Poson *poya* (commemorating the day on which Buddhism was brought to Sri Lanka) are observed by the entire household. In addition Robinson notes that:

> "Aside from full-moon days and annual ceremonies centre around *pirit* chantings and funerals...*pirit* refers to a Pali text which is chanted at various occasions: at pregnancy, at completion of a new house, at the start of a long voyage, on the anniversary of an important death, and to drive away *Yakkuwa* (demons) from persons who have become possessed" (ibid: 36).

[25] Baker (1998) also provides detailed descriptions of Buddhist related activities in village life in Moneragala.

[26] Baker highlights how "the school day begins and ends with Buddhist stanzas; and in addition to the formal Buddhism classes in the curriculum, many stories from Buddhist history are incorporated into other lessons too" (1988:119).

There has been much discussion on the role of the Buddhist monk. Baker (1998) points out that from the villager's perspective, the monk is particularly needed for funerals and commemorative *dana* or almsgiving ceremonies that are held seven days, three months and then annually (if possible) after the death of a family member (see Plate 6). On these occasions collection of merit for the spirit is especially important. For example, if the family want to convey a great deal of merit for the deceased relative, they can offer a special package to the monks containing eight prescribed items (*ata-pirikara)* including three robes, a begging bowl, needle and thread, water strainer and razor (Baker,1998). Lester notes that: "Gifts to the monks are most merit full since the merit power of the offering depends upon the purity of the receiver as well as that of the giver" (1973:46). At the end of the ceremony relatives and close friends will pour a jug of water (see Plate 6) into a cup which overflows into a bowl, "symbolically conveying the merit to all beings" (Lester,1973:93).

A reciprocal exchange occurs between the Buddhist monk and the villagers. The ideal monk, as Lester explains:

> "...cultivates, carries and radiates the wisdom, compassion and power of the Buddha to all beings. He may serve his community as preacher of the Buddha word; teacher of youth; healer of the sick; respected counsellor of all kinds and condition of man; hallower of the great occasions of family, village and national life; exorcists of the malevolent spirit forces which play upon worldly human existence; social welfare worker and political integrator..." (1973:6).

The monk presents the villagers with an opportunity to give, by feeding, clothing and housing him, and in doing so he also provides an opportunity for the lay people to 'collect' merit. However, the relationship between the monk and the lay people can sometimes go awry as I witnessed in the villages. Not long after I

Plate 6

Fig.6.1: Buddhist monks at a funeral almsgiving (*dana*) in Mediriya.

Fig.6.2: Buddhist monks at the nearby Badulgalena 'Forest' temple.

Fig.6.3: A Buddhist shrine in a village house.

Fig.6.4: 'Pouring water' at a funeral.

arrived, I discovered that people were not happy with the two monks residing at the temple. Many households have a designated day of the months when they bring food to the temple for the monks. Frequently villagers would struggle to the temple in the early hours of the morning with the specially prepared rice and curry only to find that the monks were not there. Long absences were interpreted as a lack of concern for the temple and villagers. Rumours also abounded that the monks liked to drink and smoke. Eventually, discontent in the village led to a meeting where the monks countered villagers' complaints with their own grievances particularly in relation to the remote location and lack of facilities (especially water). These monks were asked to leave, however, and replaced by five monks who were well known in the region for being pious and hardworking. Interestingly, once the new monks were seen to show concern for the development of the temple and welfare of local people, villagers quickly got together and devised a way of bringing fresh drinking water down from the mountain and into a purpose built well.

For the relationship between the Buddhist monk and villagers to work the monk has to "exist to support the lay society as much as the layman exists to support the monk" (Lester, 1973:130). This is no truer than in the Buddhist rituals that surround agricultural activities, particularly in relation to fertility and rainmaking. For example, the sacred Bo tree is thought to have the power to produce rain in times of drought following a ritual of "bathing the Bo-tree" (Fernando, 2000). Nevertheless, villagers do not rely solely on Buddhist beliefs in good conduct and attaining merit to overcome uncertainty in this world. As Lester points out:

> "The animistic beliefs and practices of the various Buddhist people of Southeast Asia differ in their outward form but functionally they

> everywhere serve the same ends... Each of the valued forces in the individual and his environment has or is a spirit. The status and role of each spirit and its relative importance in relation to other spirits are a reflection of the particular social, economic and political life of the people" (1973:134).

Astrology, Deities and the Supernatural

Baker notes that in the village:

> "Innumerable customs and beliefs... crisscross diverse aspects of the supernatural: Buddhism, woven together with a myriad of other beliefs in Hindu gods, local deities, devils and evil spirits, animistic and folk beliefs, as well as an unflagging confidence in astrology- all [merge] to create an intricate tapestry of the supernatural world" (1998:33).

The village astrologer (see Plate 7) lives in Walamatiara and although he primarily earns his living from farming, his services were in constant demand.[27] He was often called upon to produce a horoscope after the birth of a baby, to compare horoscopes of a couple to see if they are compatible for marriage or to work out auspicious times (*nakatha)*. An auspicious time is required for any number of occasions from important life ceremonies such as weaning (see Plate 9), first haircut, first letter, first day at school, attaining age ceremony and marriage to significant occasions as in the building of a new house (laying the foundations, first brick etc.). An auspicious moment is often also required for many other activities such as when to leave the house, when to go on a journey or when to start your new business. In the villages, auspicious times did not seem to be used for agriculture so much although farmers did organise major activities around 'lucky' and 'unlucky' days. For example, Tuesday is associated with Mars and it is a bad day to start any agricultural activities. However, if a household wanted to plant or harvest on a Tuesday, they could avert any

[27] Nevertheless, it should be noted that not everybody used this particular astrologer. Some preferred other astrologers who lived in the Passara area.

Plate 7

Fig.7.1: Astrologer with *Tal* leaf horoscope.

Fig. 7.2: Ritual healer performing an all night ceremony.

Plate 8

Fig.8.1: Ceremony where ritual specialist invokes the power of Kali to exorcise the victim who is believed to be Possessed.

Plate 9

Fig.9.1: Applying the black dot (*pottuwa*) to protect the baby from evil eye.

Fig.9.2: Weaning ceremony – the infant is fed *kiribat* (milk rice) at the auspicious time (*nakatha*).

Plate 10

Fig.10.1: *Kiriamma* (milk mother) ceremony. The seven *Kiriamma's* arrive in the early hours and wait to be invited into the house.

Fig.10.2: The seven *kiriamma's* are given food and gifts.

serious ramifications by doing a little on Monday, which is associated with the Moon and considered to be a good day.

The astrologer is also used to consult planetary deities, particularly when a person faces problems such as ill health. The planets invoked were *Ravi* (Sun); Candra (Moon); *Kuja* (Mars); *Buda* (Mercury); *Sukra* (Venus); *Sani* (Saturn); *Rahu* (shadow planet - Dragon's Head) and *Ketu* (shadow planet – Dragon's Tail). On several occasions during my fieldwork, bad planetary influences (*apala*) had affected a person to the extent that it warranted a ritual healer (known as *Gurunnānse* (teacher) or *Kapurala* (spiritual healer)) from Passara to perform a *pooja*, which was described to me as an offering made to planets who represent *devatava* (minor deities). The purpose of the ceremony is to draw attention of *devatava* to the pooja (see Plate 7).

In addition to astrology, villagers also integrate Buddhist religion with beliefs in deities. Baker notes that,

> "Even major Buddhist temples have their shrines to local Hindu gods; and one may see statues or pictures of favourites such as Ganesha, Vishnu, Pattini, who are supplicated for protection and favours ... Frequently the Buddhist household shrine is shared by a picture of Kataragama,[28] the Hindu God, who is thought to reign supreme in this region of Sri Lanka [Moneragala]" (1998:34).

Certainly, I witnessed one ceremony (*deva dana* - almsgiving to the Gods) performed after the paddy harvest by men, which involved the offering of milk rice[29] (*kiribat*) to Kataragama to ensure a good harvest in the future. Other Hindu deities that are called upon in the village include Pattini and Kali. For

[28] See Plate 6.
[29] Made from the first handful of paddy harvested.

example, Fernando describes the Kiri Amma ceremony (see Plate 10), as an alms-giving to the seven mothers who are identified with the goddess Pattini.[30] He states:

> "The belief in Kiriamma deities can be seen among the Sinhalas living [in] Moneragala and Mahaoya...the favour of Kiriamma deities is sought not only for curing diseases, but also for the protection of children and getting children for childless parents...The alms are offered to seven mothers blessed with children, in the name of seven incarnations of goddess Pattini, who is said to have descended seven times upon the earth" (2000:239).

The goddess Kali is described as the most vicious of the deities and is thought be capable of curing diseases (see Plate 8).

Villagers believe in the presence of malevolent spirits (*prethas*) and demons (*yakśa*) and many precautions were taken to avert danger (see Fernando, 2000). However, one particular concern amongst villagers is the threat of evil eye or evil-mouth. Baker (1998) notes that a black dot (*pottuwa*) is placed on the forehead of young children to ward off the evil eye (see Plate 9). A household's cultivation may also be in jeopardy. Fernando explains how the:

> "Evil eye is averted by many a device. For instance, one commonly notices a scarecrow or...some strange object in the garden or field where cultivation is carried on. These objects being conspicuous, attract the eye of the passer-by before he could observe the cultivation and the evil effect of his sight or word or thought therefore strike the scarecrow, and the growing crop is saved from disaster" (2000:369).

Planetary or supernatural forces also sometimes influence health matters.[31]

[30] Kapferer (1998) notes that Pattini is "recognised as having a number of different manifestations, some of them demonic and destructive" (p.11).

[31] For example, one elderly villager believed his illness was due to the influence of Saturn.

Health

Baker notes that as part of an unofficial 'health insurance' the villagers in rural Sri Lanka use four different approaches to healing - home remedies, traditional medicine (Ayurvedic), ritual healing and western medicine (1998:65).The livelihood strategies of villagers are influenced to a certain extent by the state of their health. Moneragala has always had a reputation for malaria. One villager told me that long ago Moneragala used to have the nickname *Muppanne*[32] and there was a saying, "*Do not point your finger at Muppanne lest the fever travel up your arm*". Currently land pits left by mining are thought to be one of the prime causes of malaria, which afflicts many villagers repeatedly, particularly during the rainy season when the pits have filled with water. Most villagers blamed it on the unpredictable weather although supernatural forces were sometimes thought to be the cause of a villager's misfortune to get ill. Nevertheless, malaria can have devastating consequences for households. As Thompson points out: "People suffering from malaria are unable to go out and tend to their assets. Equally, people without assets are vulnerable to malnutrition and disease and are less likely to be able to afford essential treatments and health services" (1998:203).

Two village women suffered from Goitre, possibly because of an iodine deficiency but the other major health problem in the region is phlegm (*sema*), which causes a variety of respiratory difficulties. Obeyesekere (1976) provides an explanation of this disease with reference to āyurveda and the three humors. The fundamental principles of āyurveda include the five *bhūtas* (basic elements

[32] The villager was not sure what *Muppanne* meant but thought that as *Mul* meant 'chief' and *Pahana* translated as 'stone', the name might have been used to refer to Moneragala as a 'principal boundary'.

of the universe - ether, wind, water, earth and fire); the *tridosa,* three humors; and the seven *dhātus* (components of the body-food juice, blood, flesh, fat, bone, marrow and semen) (p201). Three of the universal elements appear in the body as humors. Wind appears as a humor which is also called wind; fire appears as bile and water as phlegm (p202). Obeyesekere highlights how:

> "Physical health is maintained when the three humors are in harmonic balance, but when they are upset they become dosas, or "troubles" of the organism... Increase in fire diminishes the element of water, causing a general depletion of environmental fertility and excessive bile in the human body; this results in heaty, infectious diseases, plagues and pestilences. The opposite tendency, for heavy rain and low temperatures to "cool" the human body, exposes people to illnesses caused by excessive phlegm" (ibid).

I also suffered with respiratory infections caused by phlegm and spent a considerable amount of time and money (both of which are in short supply for most villagers) having to visit [Western] trained specialists in Kandy and Colombo before I was eventually cured. Indeed Baker highlights how Moneragala, "suffers from primitive health facilities and a great shortage of medical staff" (1998:20). In theory health care is free but queues at the hospital in Moneragala where the 'free' doctors practice are very long. Those who do not want to spend a whole day waiting can visit a private doctor, essentially a government doctor who operates a private practice after he has finished work. Mostly, these surgeries consisted of a small, makeshift waiting room with a dispensary in the corner and a consulting room tacked on the end with a curtain for privacy. The doctor works fast to get as many patients through in the time that he had, charging between Rs80 – Rs100 for each consultation. Medicine often consists of several small packets of pills (always including paracetamol and anti-histamine) that last three days.

Visiting health workers passed through from time to time to give children their inoculations and sometimes a government-sponsored team would set up in Nakkala to give people free malaria checks. However, until a few months before the end of my fieldwork, everybody had to travel to Moneragala to see a doctor or to Medagama/ Badulkumbura to see an Ayurvedic practitioner. It was a relief when a doctor set up a private practice in Nakkala. Nobody was sure if the Ayurvedic hospital in Mediriya would ever open. Local healers in the village, using knowledge handed down through generations, were called upon to cure certain conditions such as stomach upsets or sprains. As a last resort, ritual healers from outside would be brought in (see Plate 7). When people were ill, it quickly became evident that being able to rely on social networks to help out with household duties and farming activities was very important.

Livelihoods

Out of the forty households, eight are located in Therrapahuwa, seventeen in Mediriya and fourteen in Walamatiara. In Table 1, I give some basic data for each household, highlighting the proportion of male to female-headed households, the extent of land available to them for cultivation and varying livelihood strategies employed. Children that had moved away from home were not included in the table and neither were their possible remittances that may contribute to household expenses.

Woost describes Moneragala as a region where:

> "People have migrated to this area for a number of reasons: many, probably the majority, have come in search of land; others have come to work as wage labourers for the multinational sugar corporations now located in the district; and still others have come to seek their fortune in

gem mining, a practice which is often combined with either or both of the above" (1990:166).

Although identified as a farming area, every household cultivating some land, it is rare to find families that depended entirely upon farming for their livelihood. Indeed most of my sample households were also engaged with other occupations. For example, at the time of my fieldwork a number of businesses were in operation such as the two rubber mills (in competition), which processed and sold the latex supplied by the villagers. An entrepreneur who quarried sand from the river and sold it for building purposes had set up a large sand yard. Smaller businesses were also in operation such as masonry, brick making, tailoring, broom making, astrology, healing and trading (in gems etc.). By far the most popular form of self-employment was in the buying and selling of agricultural produce (10% of my sample) although more often than not these activities were subsidiary to farming.

However, while it is important that households diversify their livelihood activities to lesson the possibility of hardship (see Chapter 4), such strategies can be problematic. For example, the heads of households who worked either in Government paid employment (23% of my sample)[33] or in the police force/army (15% of my sample) faced many problems in trying to maintain the land, particularly weeding and fertilising plants. Government occupations held by villagers included village headmen and women,[34] teachers, a co-operative shop manager, bankers, administrative staff and development workers. As these positions are often not well paid, the hiring of labourers is usually sporadic and

[33] By this I mean as teachers, bank employees or within administrative centres located in Monaragala and Badulkumbura.

[34] The *Grama Sevaka* of Therrapahuwa actually lived in the village of Mediriya. Her husband, however, was the headmen of a different village and travelled daily by motorbike.

insufficient to keep land clear of weeds. Some male heads, formally retired from Government service (5% of my sample) receive a pension and farm part-time. Their strategies were often less stressed, with a permanent if somewhat small, monthly income, except in times of extra financial demand such as weddings.

Educating the young is thought to be a particularly important livelihood strategy, as parents want a more secure future for their children which farming is unable to provide. As Baker points out: "The literacy figures [in Sri Lanka] are reported to have improved from an 86.5% overall literacy 10 years ago to an estimated 90.2% today" (1998:107). Moneragala, however, was reported to have a literacy rate of 76.3% in 1988, the second lowest in the country (Baker 1988:39). School is free up to University level and, theoretically, textbooks are distributed free from grade 1 to grade 10 (Baker,1988).

The majority of children, of the appropriate age, go to school. Although some attend irregularly, most children attend regularly and were enrolled with teachers for extra tuition after school, particularly in English and mathematics. Textbooks were outdated and scarce in some subjects and inevitably the brightest children were given priority. The teachers seemed unhappy with the conditions and resources at the school and absenteeism was high. Nevertheless, some opportunities were given to the children. For example, as Baker highlights: "Those who have passed 5th grade can sit for the National Scholarship Examination, the winners of which may attend a central school of their choice (if space allows admission) and are given a small...allowance to stay in the school hostel" (1988:35). Although, she notes: "In practice, however,

the children from disadvantaged areas where facilities are lacking, teacher commitment often low, and informal educational input from home minimal, are poorly prepared to score well on the scholarship examination" (ibid). During my fieldwork, one child from Mediriya did succeed in getting a scholarship although she was unwilling to go to one of the top schools in Colombo and Kandy, preferring to stay at home and travel daily to a school in Moneragala.

During an interview with the Deputy Director of Agriculture in Monaragala, it was stated that only 1% of school leavers wanted to go into farming because of the risk, lack of marketing and no year round income. School leavers who fail to secure scarce Government jobs or miss the high grades needed for a University place, often join various training courses made available through the Government or NGOs such as in arts and crafts, secretarial, administration carpentry, mechanical and electrical training (23% of my sample).[35] Those who join the army (and the police force) feel that they have no other choice despite the risks involved with fighting in the current civil war. Sadly, deaths, disappearances and injuries in the war have had a tremendous impact, affecting household resources and strategies.

Leaving home to work in garment factories, primarily in the capital of Colombo on the other side of the island, is popular with young unmarried women. Pieris explains how employment for women in "labour-intensive light manufacturing activities" expanded rapidly after the Government introduced its export-oriented open economic strategy in 1994 (1997:38). Ten per cent of the householders in

[35] With no guarantee of work at the end.

my sample took up this option but there were many more young girls in the villages who were also working in factories in Colombo and Galle. Various conversations highlighted concerns with the possibility of these girls getting a 'loose reputation', because they are living away from the watchful eye of their parents and so have unlimited freedom. They also earn money and there are fears surrounded the girls facing 'immoral temptations' such as drink and boys. I found no evidence in the villages to substantiate these worries but it was stated that girls who worked in garment factories were subsequently less than ideal marriage partners. Again factory work is often their only chance of an occupation other than farming although it is often short term, until they get married.

One married woman I knew had left home to work as a maid in a Middle Eastern Country. This was considered to be a good opportunity to earn a reasonable salary but there was the danger of mistreatment by employers and this work entailed long periods away from home, sometimes for up to three years. Children who had left school wanting to work in an occupation other than farming, but in the meantime helped out at home, were labelled in Table 1 as unemployed (28% of my sample).

Access to Resources in the Context of Rural Development

Contrary to the grassroots, participatory ideology of current development discourse which aims to tackle the problem of inequality (often through collective action), rural villagers often believe that access to available resources comes from connections with 'outsiders'. Brow traces this thinking to the

increased intrusion of the government into village life from the mid-twentieth century. He says:

> "[The village] changed its form in at least two significant respects – First, allocation of the benefits at the disposal of the state passed almost entirely from the hands of civil servants[36] to elected politicians, and second, an increasing proportion of these benefits came to be means of individual rather than collective advantage, which politicians channelled in directions that would reward their followers and build their support" (1992b:269).

Nevertheless, Woost warns that villagers are usually well aware of the problems of involving themselves in development but they may be willing to 'play the game' in order to make it work to their advantage (1993:516). Indeed he believes that in a practical sense, knowledge of the development discourse in Sri Lanka (particularly notions of the 'united community') may be viewed as source of empowerment (ibid:509). However, many rural villages in Moneragala (including Mediriya, Therrapahuwa and Walamatiara) have been settled fairly recently and I found it difficult to find any common cultural ground between villagers which could lend some sense of 'unity'.

Not all the villagers send their children to the same school or visit the same temple. Ritual and cultural activities are often carried out in individual compounds usually with only close kin in attendance. Rural societies are largely defunct and the ones that are active (such as the funeral aid society) cannot claim membership from the whole village. Thus, Woost (1993) highlights an interesting point when he emphasises that while villagers may replicate development discourse by lamenting the loss of 'unity' within the 'community', it

[36] Robinson (1975) explains that prior to 1963, the village was run by the 'headman' and (in some places) the *Vel Vidane* (Irrigation Headman). They were replaced however by the civil servant *Grama Sevaka* who carried out much the same duties.

is questionable whether a 'community' actually ever existed. Such a perspective has implications for agriculturally related (and indeed all rural) development programmes that seek to empower local people through co-operation and collective action. Even the rubber-intercropping project which, to a large extent is aimed at benefiting individual households, relies on the notion of 'community co-operation' for the oral dissemination of rubber intercropping technology. Also, in order for land-poor farmers to benefit from intercropping with rubber, they would need access to some sort of social network (or social capital - see Chapter 5) that would allow him/her to cultivate intercrops on another rubber grower's land.

Morrison notes that within current farming practices, it had been recognised that villagers have diversified their livelihood strategies to counter the uncertainty involved in agriculture. He also observes how they have become very "selective in their response to government efforts to encourage increased production or 'rural development'" (1980:452). At the same time, Morrison points out that rural villagers are increasingly engaging with people and agencies outside of the village especially in dealing with commercial buyers, suppliers of chemical inputs and suppliers of subsidies (ibid:460-461). He states, "In these new relations the families with superior educational levels, greater experience in the outside world and, in some measure, the right political connections gain advantages over other families" (ibid). Dissanaike argues that agriculture has largely failed the farmer in Sri Lanka believing that:

> "The fault lies everywhere. It is ingrained in a system that does not encourage University research to filter down to farmers. In a system that does not protect the farmer adequately from price shocks...there is no mechanism that effectively links the majority of farmers with the

> cocooned research scientist – in Universities or even in the Agriculture Department's own research stations" (The Sunday Times, 2000:7).

Thus, Brow and Weeramunda (1992) suggest we look at agrarian systems as a dynamic social process which involves "complex patterns of conflict and co-operation" as people continually struggle over access to resources (p.10). By examining the social and cultural context of agrarian systems, we may start to comprehend the ways in which rural development is understood by villagers who have experienced it (ibid).

Farming in Sri Lanka: An Brief Overview

Ashton *et al.* (1997), highlight how Sri Lanka has been settled on a large-scale since the 5th or 6th century BC. Brow provides a brief overview of the history of agriculture in Sri Lanka which he believes is characterised by several radical changes:

> "1. Initial introduction of agriculture to the Island. 2.development of tank-based system of irrigated agriculture in the Dry Zone (2000 years ago) that sustained the classic Kingdoms of Anuradhapura and Polonnaruwa. 3. Fell into decline from the 13th century onwards – centres of Sinhalese power and population shifted to coastal wet zone in SW and Kandyan highlands –new agricultural regime towards mercantile trade overseas. 4. British export orientated plantation agriculture in central highlands. 5. Last few decades." (1992a:41).

While Sri Lanka's nationalist rhetoric still glories in the ancient 'irrigation civilisations' of the Annuradhapura[37] and Polonnaruva Kingdoms, the agricultural system we know today was mostly shaped during the colonial encounters. In the sixteenth century, Sri Lanka came under the influence of the Portuguese. The overriding interest of the Portuguese was the spice trade and

[37] Where I have known the spelling of certain Sinhalese words I have included the accent. Otherwise I have tried to stay as close to the proper spelling as possible.

the Country's potential in cinnamon production (Hochegger, 1998:35). They had little interest in alienating territory but nevertheless had a profound influence on the economy of the island. Hochegger explains:

> "Under the Portuguese there was little interference with the existing administrative structure (Rājakāriya)[38]...Also the duty to serve the King in exchange for land was expanded to military service and production of export crops...due to these developments the impact on the Sinhalese economy was fundamental. Cinnamon became the main revenue for the state and accordingly dues form the land became less important" (1998:35-36).

The Portuguese were overthrown when the Kandyan King called on the Dutch for help. The Dutch also played an important role in the spice trade but did little to improve tensions within the different polities. Initiated again by a call for assistance[39] from the King, the British placed Sri Lanka under its colonial rule in 1802, (Although this was not quite what the King had intended - see De Silva, 1981), which continued until independence in 1948.

The impact of the British on Sri Lanka's economy and agriculture was far reaching. Two important changes, relevant to this thesis, were the "successful establishment and expansion of plantation agriculture...[and the] transformation from traditional ways of trade and exchange to a market economy" (Hochegger,1998:38). Following the collapse of coffee plantations, which had been devastated by a leaf disease (*Hemileia vastratix*), De Silva highlights how three major plantation crops became dominant between 1880 and 1910, namely tea, rubber and coconut. However, the subsequent dependence on plantation

[38] Rājakāriya literally means service for the King and refers to the Sri Lankan caste system (De Silva,1981:39).

[39] At this time the British and the French were at war over the control of India. Hochegger notes that, "the harbour of Trincomalee became strategically important for both Countries. After the Dutch joined in armed neutrality with the French against the British the war between the British and Dutch started in 1781...finally, between 1796 and 1802 the Island came under the administration of the East India Company...and in 1802 Ceylon was made a colony under the British Empire" (1998:37).

export crops has had serious financial implications for the Country. As Johnson and Scrivenor point out: "The heavy dependence on plantation products for earning foreign exchange is very apparent, these making up 76% of the total. Such commodities are notoriously subject to fluctuations in the world market price" (1981:30).

At the local level, farming practices were also affected, particularly traditional forms of subsistence cultivation such as *chena* (slash and burn), which necessarily required an abundance of forest land. Ashton *et al.* (1997:15), describe how the British, following on from the pre-colonial custom of all land belonging to the King, designated all land without formal title the property of the government. They believe that the main reason for the British statutes was to obtain land for the plantations (ibid). However, the British also felt that *chena* was a wasteful form of agriculture and tried to restrain such activities, particularly as most forest land now belonged to the crown. Brow notes that the:

> "Colonial period was one of continuous and pervasive change in peasant agriculture, as a result of legal and administrative innovations that introduced new definitions of property rights and new forms of taxation, commoditisation and monetisation of the rural economy" (1992:42).

Moving into the twentieth century, however, Moore reports an increased interest in the peasant sector. He states:

> "Sri Lankan society did not cease to evolve once the plantation system had been established. One of the major significant trends since about 1930, has been the 'peasantisation'- some might say 're-peasantisation' – of the agricultural economy i.e. the expansion of the small-scale family farming sector at the expense of the plantation sector and as a counterweight to the processes through which members of smallholding families would otherwise become landless" (1992a:33).

Brow (1992:45) believes that early government campaigns to increase agricultural production [especially during and after World War Two] was in response to an overriding concern to solve the problems of rapid population growth and landlessness, rural unemployment and a national deficiency in basic foodstuffs. However, he also points out that rural development efforts were aimed at gaining the "electoral support and political quiescence of the rural population" (ibid). Some examples of the laws introduced to regulate the cultivation of (particularly irrigated) land include the Paddy Lands Act of 1958 and the agricultural land laws of 1973 and 1979, which aimed to provide some security to tenant cultivators by stipulating a maximum rent payable to landowners as well as instituting a ceiling on ownership of land (Perera, 1992).[40]

Rubber

The British introduced rubber as a plantation crop into Sri Lanka in 1877 (De Silva, 1981:291). De Silva points out that, "By the 1890's many British planters as well as enterprising Sri Lankans were impressed with the possibilities of growing rubber on a commercial basis" (1981:291). Indeed, instituting rubber as an exportable commodity was just one of many attempts by the West to control Sri Lanka's natural potential.

Johnson and Scrivenor note that once rubber is established it "is an easier crop for the smallholder to manage [than tea], and is less insistent in its demand...processing of latex into sheet can be done on a small-scale, but

[40] In some cases the laws created conflict between landowners and tenants (See De Silva, 1981).

quality control is important"(1981:97). The rubber tree has a life span of around thirty years which includes the five to six years it takes to mature before it is commercially viable. As well as being a source of latex, once it is senile the rubber tree can be utilised for fuel wood or the timber can be used in manufacturing. In recent years, attempts have been made to expand rubber cultivation from traditional wet zone regions to the intermediate zone, largely because of the limited land available in the more densely populated regions on the western side of the island (Dr Senananyake, pers. comm.).

Intercropping is now encouraged in the recognition that up until the rubber is mature, only 20 per cent of the total land area is utilised, representing an inefficient use of land. Intercrops (such as banana and *brinjal*) can be grown with rubber up until the fourth year but intercropping has not always been favoured. Janowski points out that, "intercropping has not, until recently, been encouraged in the context of plantation crops like rubber and teas" (1997:15). In fact, regulations enforced by extension officers who control subsidy payments, ensured that monocropping prevailed.[41] But times have changed. The Sri Lankan *Sunday Times* reported that in 1999, "Owing to continued depression of [rubber] prices, the rate of new planting has declined by 58 per cent...fertiliser use too has declined" (*The Sunday Times Business*, 2000:2). Indeed the Rubber Research Institute recognised the need to address international challenges to the rubber industry in its Corporate Plan (1998-2002). The Chairman of the Rubber Research Board made some important points stating:

[41] Due to the high cost of planting and the six to seven year period before maturity, smallholder rubber planting has been subsidised. One villager told me that he received Rs3800 a year for one acre. In the first year it was broken down into Rs1000 for planting material, Rs900 for labour to dig holes and plant the rubber, Rs900 for fertiliser, Rs750 for fencing and Rs250 for labour to weed.

> "The declining prices have had their repercussions in a drop in the replanting of rubber. Furthermore, the area under rubber cultivation has declined due to increased urbanisation and crop diversification. The response to this should be to achieve a higher yield per hectare of rubber...The Board has also focussed its attention to the need to enhance the income of rubber smallholders where they can survive the period of immaturity by intercropping with tea, cinnamon, banana and pineapple" (1998:preface).

Like many other research facilities in Sri Lanka and worldwide, the Rubber Research Institute faces a demand for technology that is more meaningful and relevant to national needs. In order to encourage people to grow rubber, the problems of income loss in the immature stage and the current low prices for latex have to be addressed, as well as other socio-economic and agronomic factors.

The Land

There are two cropping seasons in Sri Lanka, the *Maha* season (the main cultivating season), which generally runs from October to March, and the *Yala* season from April to September. Huge tracts of land in Moneragala belonging initially to the crown and then the state are now occupied. As Perera points out, "nearly every villager encroached on state land to cultivate *chena* from which a substantial portion of income was obtained" (1992:102). Vitebsky explains how villagers without a land permit could, "strictly speaking...legally be evicted in the interests of forests, soil conservation and the rule of law" (1992:159). Nevertheless, he highlights how, "this rarely happens and there are strong humanitarian, political and populist pressure which allow and even encourage such encroachment" (ibid).

Currently Moneragala can be divided up into seven farming systems depending on crops favoured and factors surrounding these preferences. Thus the region is currently home to rain-fed highland crop farming systems, intensive cash cropping, paddy farming, contract crop farming, marginal land cultivation, fruit crops based farming and export crops (Attapattu, 1997:4-4). In the villages of Mediriya, Therrapahuwa and Walamatiara, *chena* or slash and burn cultivation ended when the villages grew and land became scarce. Now most people practice non-shifting highland cultivation in addition to keeping home gardens. Hochegger compares the typical home garden (*gewatte*)[42] to a forest claiming that:

> "The farmers of Sri Lanka have observed the forest, living in and with it for centuries...the *gewatte* has evolved imitating the natural forests, only differing in that the combination of species varies due to the selection according to human requirements...the merciless light of the tropical sun has evoked a preference for cool and shady places" (1998:13).[43]

Perrenial cash crops are generally grown in smallholdings (*watte* or garden) which are either extensions of home gardens or located in a separate part of the village, usually on leased or borrowed land. Johnson and Scrivenor differentiate between the home garden and smallholding stating that:

> "The climate allows a wide range of plants to be grown and at first impression a homestead garden is a confused, luxuriant, green multi-storeyed jungle...while there is much variation in the nature of smallholdings they are mainly distinguishable from homestead garden by having fewer species and by growing them on a commercial basis" (1981:49).

Paddy cultivation is largely restricted to non-irrigated or highland terraces, although 23% of my sample are fortunate enough to cultivate plots between 0.5 and 2 acres within the irrigated Therrapahuwa, Nakkala or Yakurava colonies

[42] *Ge*=Home, *watte*= garden
[43] See also Geertz, 1963.

(see Map 5 and Plate 11). The terraces are often passed down through the generations. An alternative is for households to secure rice through a tenancy sharecropping systems called *andē* where the landlord provides the land and resources and the farmer ploughs, plants, maintains and harvests the paddy in return for half the crop. However, 18% have no access to paddy terraces and have to buy in rice. Other subsistence crops include millet (Plate 12) and maize (Plate13), both of which can also be sold.

Cultivating cash crops

Therrapahuwa GS division is well known for the cultivation of *brinjal* (see Plate14), a type of aubergine and is one of the few regions that concentrates on producing this vegetable for sale. Other vegetables, fruits and pulses cultivated on smallholdings in the three villages are highlighted in Table 3.[44]

Example of crops found in smallholdings	
Bitter gourd	
Chillies	(see Plate 15)
Cucumber	
Cowpea	
Greengram	
Groundnut	
Long beans	
Milk potato	
Manioc and other yams	(see Plate 15)
Okra	(see Plate 14)
Onions	
Pumpkin	
Rabu	
Tomato	

Table 3: Cash crops

Close to the house where they can be watered and harvested easily certain herbs and spices are also grown. Some examples are featured in Table 4.

[44] For all of the species English terms will be given. Where the English name is not known the Sinhala term appears on its own.

Plate 11

Fig. 11.1: Paddy terraces at Nakkala Colony.

Fig.11.2: *Attam* team preparing paddy terraces in Mediriya.

Plate 12

Fig.12.1: Harvesting millet which has been planted in between maize and rubber.

Fig.12.2: Drying millet on the paddy threshing floor.

Plate 13

Fig.13.1: Maize at four weeks old.

Fig.13.2: Preparing dried maize for sale.

Plate 14

Fig.14.1: *Brinjal* ready for sale. The small pile of *brinjal* in the background is infested with worms.

Fig.14.2: Okra.

Plate 15

Fig.15.1: Once dried the chillies will be ground into power. Cocoa seeds and millet are also being dried.

Fig.15.2: Manioc: The yams and leaves can be eaten.

Example of herbs and spices found near the kitchen
Tumeric
Ginger (medicinal)
Curry leaves
Gottukola (leaves that can be made into a curry) – Plate 17
Mukunavenna (similar to Gottukola)
Rampe (aromatic herb used in meat dishes) – Plate 16
Niviti (berries used in curries) – Plate 16

Table 4: Herbs and spices

Permanent and Perennial Cultivation

Boundaries are generally demarcated using live fences of Teak or *Dadap* (see Plate 18). The latter is also used as a climbing frame for pepper (although in home gardens any permanent tree may serve this purpose). Preferences for perennial cultivation in the home garden and smallholdings include:

Citrus fruits[45]	Lime and variety of orange species such as Mandarin (*Naran*) and sweet and sour oranges (*Dodun*). Lime trees are normally planted in greater quantity as the fruit can be sold. Oranges, on the other hand, are usually limited to the home garden.
Avocado	Fruit
Passion fruit	A creeper
Mango	Around eight varieties
Guava	Fruit, bark is medicinal
Papaya	Two varieties
Custard apple	Two varieties – *Velli/katu anoda*
Wood apple	Fruit, whole plant is medicinal
Lolu	A yellow fruit
Pineapple	Grown mainly in the home garden although the fruit can be quite bitter if planted in the shade
Rambutan	Normally grown in wetter regions but farmers are experimenting because the fruit fetches a high price
Tamarind	Fruit is used as a flavouring in curries, whole plant is medicinal, wood is used for furniture-making
Weralu	Sour fruit
Jambu	Sour fruit
Jam	Fruit in the form of a red berry
Papaya	Fruit, whole plant is medicinal

[45] This region was well known for many years for the cultivation of citrus fruits but viruses have destroyed most of the orchards.

Pomegranate	Fruit, roots are medicinal
Uguressa	Fruit is in the form of berries, whole plant is medicinal
Horse radish tree	Vegetable, whole plant is medicinal (Plate 20)
Ambarella	Sour fruit, whole plant is medicinal

Table 5: Trees found in the home garden

Plants that are cultivated predominantly for home use, but can also be sold if they yield in large quantities, include:

Coconut	Essential for home use, the whole plant can be used (Plate 19)
King Coconut	Water is medicinal
Breadfruit	Fruit used in curries
Jak fruit	During the season (usually April to September) Jak fruit is in such abundance that I asked why it was not collected for sale. While jak fruit fetches an exorbitant price in Colombo such little money would be paid to farmers in Moneragala that it is not worth the effort (Plate 20)
Cashew	Nut
Coffee	Cultivated predominantly for home use
Cocoa	Often used as an intercrop for mature rubber
Areca nut	Betel leaves, taken with areca nut, are carefully cultivated in every home garden (Plate 21)
Banana	Four main varieties in this region (see Chapter Three): *Kolikuttu*, *Embul*, *Alukasel* and *Sini* (Plate 22)

Table 6: Home garden plants that have the potential to make money

Trees such as teak and rubber, which need more space, are usually cultivated on the smallholding. A number of trees species are established in and around the homesteads that are considered to be 'jungle' trees. Some have a medicinal value while others are valued for other purposes, e.g. their wood. *Beli* (medicinal), Margosa (medicinal/timber) and Indian almond (medicinal) are usually planted in the home garden. On farming land, alongside roads or in reservations certain useful trees can be found such as the *Kumbuk*, a large tree normally situated along water courses and considered to be essential for the

Plate 16

Fig.16.1: *Rampe* surrounded by straw to keep the moisture in the soil.

Fig.16.2: *Niviti* grown next to the kitchen.

Plate 17

Fig.17.1: *Gottukola*: Dried paddy straw has been placed over the herb to keep the moisture in.

Fig.17.2: *Gottukola* next to the kitchen.

Plate 18

Fig.18.1: Dadap can be used as a support for pepper vines.

Fig.18.2: Dadap fence along a path into Therrapauwa.

Plate 19

Fig.19.1: Coconut: A man has been hired to knock down the nuts.

Fig.19.2: A pepper vine.

Plate 20

Fig.20.1: Harvesting the horse radish.

Fig.20.2: Jak fruit.

Plate 21

Fig.21.1: Arecanut (this picture was taken at one of the field sites in Kalutara).

Fig.21.2: Betel leaves are cultivated in the home garden.

Plate 22

Fig.22.1: Young banana plant intercropped with coconut.

Fig.22.2: The banana flower can be made into a curry.

well being and continuation of streams and rivers. The timber of the *Kumbuk*, which can be used in heavy construction, is valuable but it is against the law to remove them.

During my fieldwork I also noted the presence of certain species in the smallholding that generally occurred naturally (not planted). These included:

Kitul	The pulp inside can be used to make toddy, jaggery and it sometimes contains flour
Milla	Medicinal and timber
Trincomalee wood	Timber
Kon	Timber and medicinal
Satin wood	Timber
Kota	Medicinal
Asoka	Medicinal and ornamental
Ipil Ipil	Firewood
Keta Kela	Firewood
Wild date palm	Fruit and medicinal
Palmyra palm	Leaves used to write on, medicinal
Thotila	No use
Bamboo	Four varieties
Ranavara	Medicinal
Rukaththana	Medicinal, wood used for coffins

Table 7: Wild species

Wild medicinal plants (a few of which are listed in Table 8) are almost always available, particularly in the smallholdings.

Polpala	Good for urinary tract infections
Kurumania	Observed being used as cat medicine
Pavatta	Cattle medicine
Mihanna	Cattle medicine

Table 8: Medicinal plants

A Note on Rubber:

Despite the currently low prices (during my fieldwork prices for rubber fluctuated between Rs30 and Rs50 a kilo), rubber is a popular choice amongst smallholders who own at least one-half to one acre of land. Originally grown in

Plate 23

Fig.23.1: Immature rubber intercropped with banana in Walamatiara.

Fig.23.2: Tamil worker employed to tap the rubber every other day.

the wet zone region of Kegalle, rubber has become increasingly favoured in villages such as Mediriya, Therrapahuwa and Walamatiara. Out of my sample of 40 households, 30 had planted rubber, with trees in various stages of between Rs30 and Rs50 a kilo), rubber is a popular choice amongst smallholders who own at least one-half to one acre of land. Originally grown in the wet zone region of Kegalle, rubber has become increasingly favoured in villages such as Mediriya, Therrapahuwa and Walamatiara. Out of my sample of 40 households, 30 had planted rubber, with trees in various stages of maturity. maturity.

Farming the Land

Hochegger believes that the home garden "symbolises the attitude of 'letting grow'...it can be called a kind of agriculture where the farmer seems to go with nature rather than work against it" (1998:13). However, people in the three villages do actively change the landscape in the *gewatte* and smallholding in order to cultivate subsistence and cash crops. The following case study highlights the typical seasonal or daily agricultural activities carried out by farmers in this region. This study of a year in the agricultural life of a village household was compiled from interviews and observations and will give us some insight into the types of crops that are chosen and the problems that farmers face.

Case Study 1: Household 1[46]

Siripala Rathnayake Mudiyanselage is the third of five sons born to Sudu Menike who was one of the original settlers in Mediriya along with her siblings

[46] See Table 1 for household details.

and their families. Siripala's wife, Sudu Kumari, is from the village of Tanwatte, located a few miles away. They live in a cement house in Mediriya with their two young sons who attend the local school. Their marriage was arranged and they have been together for eleven years.

Around fifty years ago Sudu Menike (Household 2) and her husband used the land for slash and burn (*chena*) cultivation and subsequently decided to stay. As their eleven children grew up, it was clear that the five acres of land that they had 'captured'[47] would not be sufficient for all the sons. They gave two acres to their eldest son, Sugatapala,[48] and their youngest, Somapala, cultivates the remaining two acres, which he manages in his spare time. Rathnayake, the second eldest son, left the homestead and encroached on seven acres of 'middle class' land (see earlier) in Walamatiara. The remaining two sons built houses on the original homestead but Ariyapala spends most of his time away prospecting for gems and Siripala was forced to find land elsewhere to farm. Like many villages he looked to the territory across the river.

The Kumbukkan Oya (River- see Map 6) separates Mediriya and Walamatiara from land owned by Moneragala temple. Pockets of this land can be leased for a fee. Land owned by the *Sangha* (order or monks) or Monasteries has been recorded even during the early Anuradhapura period (particularly around the fourth century). De Silva explains that in what was then a feudal society, "Monastic wealth accumulated gradually but steadily through donation and

[47] By using this term Sudu Menike meant that they had cleared the jungle on crown land and later got a permit.

[48] During my stay he sold his portion of the land, much to the consternation of the rest of the family and moved his own family up to the Mahawali scheme (massive irrigation project) to concentrate solely on cultivating paddy.

exchange...a form of monastic landlordism evolved and the monasteries themselves developed into largely self sufficient economic units" (1981:39-40). Siripala and Sudu Kumari pay the temple 1600 rupees (approximately £13) a year for eight acres of land, five of which is cultivatable.[49] Reaching the land requires the crossing of the river although there is an alternative route, involving a bus ride and a long walk, if water levels are too high during the rainy season. Roughly in the shape of a long rectangle the land is divided by a dirt road leading to 22 Mile Post. Originally dense jungle, Siripala removed a number of trees when he first leased the land fifteen years ago. However species such as *Milla*, *Bakini* and *Mora* were kept for future use. Sudu Kumari said that these trees had been left for her children should they want to build a home.

The land (see Diagram 3) comprises sand, red and black soil (see Chapter 3 for further discussions on soil) and is bordered by a live fence of dadap. Cultivated plants include teak (1000 plants), jak, areca nut, lime, banana[50] and coconut, although Siripala initially planted sugarcane (see Plate 24), like most villagers in this region. The land includes around a quarter of an acre of paddy terraces that are rain fed. During the year, they are also planted with millet, maize, manioc and pulses such as cowpea and green gram. Cash crops include *brinjal*, chillies, limes and okra. They originally had an acre of rubber but Siripala had not weeded and the plants were thus destroyed when there had been a fire (along with a number of lime trees). Siripala and Sudu Kumari do most of the agricultural work with the exception of ploughing. Labourers were hired only once during my stay to help with weeding. *Attam* (shared labour) networks were

[49] The other three acres are taken up by part of a large landmark called *Kalugala*, the black rock (see Plate 25).
[50] Banana species on this land included *embul*, *kolikuttu* and *alukasel*.

Diagram 3

Sketch of the smallholding cultivated by Household 1

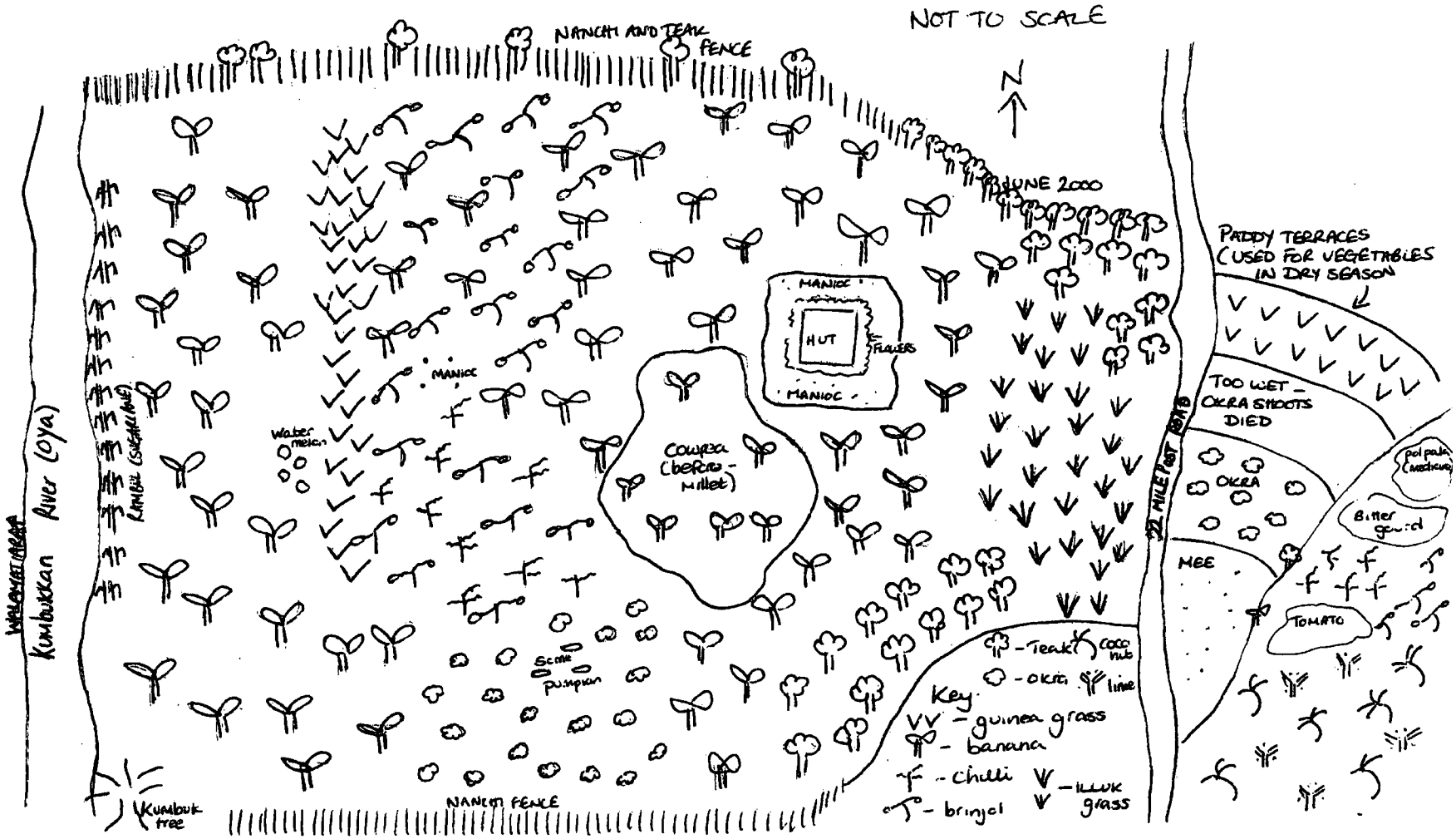


Plate 24

Fig.24: Sugarcane – Labourers were employed from outside the village to harvest this crop.

Plate 25

Fig.25.1: *Kalugala*, the black rock.

Fig.25.2: View of Siripala's and Sudu Kumari's land from *Kalugala*.

Table Nine
Seasonal Calendar of Household One

Month	Preparation	Planting	Maintenance	Harvesting
September (1999)	Tomato nursery is set up near the house	Maize and millet	Weeding	
October		Manioc and chilli by the house	Both Gunapala and Chandra visit the garden everyday to weed and collect	
November	Brinjal and chilli nursery set up next to the paddy terraces		Same as above	
December		Chilli and okra	Same as above	
January (2000)		Dadap plants for pepper next year Planted brinjal	Guarding paddy Marketing fences to protect lime trees from animals and thieves Guarding maize against wild animals	End of the month – harvesting paddy and maize
February	More rain than expected so weeding paddy land in preparation for *Yala* (see Introduction) cultivation Ploughing	Sow paddy	Weeding	Millet, brinjal (weekly), chilli, okra (weekly), maize
March			Weeding Application of pesticides on brinjal	Limes, brinjal (weekly), chilli, okra (weekly)
April			Weeding	Millet (planted later than the first lot) Brinjal (weekly)
May		*Gottukola* shoots by the house	Weed around lime trees	Limes, brinjal (weekly), paddy
June			Hired labourers to weed the land	Okra (weekly), brinjal (one week only)
July			Weeding	Okra (weekly), brinjal (weekly)
August	Tomato and brinjal nurseries (by the house)			Okra, brinjal
September	Hires tractor to plough land (not enough rain so needed again) Weed and plough paddy terraces	Tomatoes (these failed from lack of water and had to be replanted) Brinjal	Weeding	

employed for paddy and millet harvesting and consisted of small teams involving close family members.

Table 9 highlights the activities of Household 1 during the agricultural year. The cultivation of *brinjal* is especially important for this family, as it is their major source of income. If both the *Maha* and *Yala* seasons were successful they could harvest enough rice for the year. Large stores of millet from 1999 and 2000 were kept for home use although some could be sold in an emergency. Okra was cultivated and maintained solely by Sudu Kumari who used the money from the sale of this vegetable on herself and her children. For example, one week she bought herself an umbrella. Another week she bought her sons a new pair of shoes each. During the dry season in 1999 Siripala spent most of the time 'gemming' (see Plate 33),[51] but this was limited to one week in 2000 because extra rainfall throughout the year made agriculture profitable.

Nevertheless, the problems that villagers like Siripala and Sudu Kumari face are diverse, encompassing not only agriculture but also other aspects of life. General difficulties experienced by the majority of households, which impact on agriculture and therefore livelihoods (see Chapter 5), include problems with access to land and water, availability of labour, control of pests and diseases and trying to engage with market forces.

Land

Lack of land is a major issue. Villagers in Mediriya and Therrapahuwa were

[51] Digging and sifting for gems, either in the river or in land pits (see Plate 33). The types of gems that can be found in Sri Lanka include varieties of sapphire, ruby, moonstone, amethyst, garnet, topaz etc.

most pressed for land because Mediriya is densely populated and the Mountain, rocks and large boulders dominate Therrapahuwa. Most households solve the problem of lack of land by sharecropping, leasing land or finding a landowner who will lend land free of charge. Terms of access to land manifest the varying power of individual households to press their claims. Whilst the majority of households have some form of permit for their land from the local authorities, some do not. Some had been waiting years for permits to be issued. Without a land permit households cannot participate in government programmes and are excluded from institutional credit and subsidies. Agreements between tenants and landlords were similarly precarious, particularly with the popular practice of informal verbal arrangements over land access. A number of cases were cited where a landowner had agreed to allow a villager to farm uncultivated plots but once the land had been cultivated, it was reclaimed. The difficulties that farmers face has some bearing on the livelihood strategies they employ to survive.

Water:

Therrapahuwa G.S. Division is located in the 'Intermediate Low Country' with a mean annual rainfall of 1020-1140mm and annual temperature of between 21°C-27°C (pers.comm. with official in Badulkumbura). Little land in the three villages is irrigated, most cultivation is rain fed. Problems arise during extended droughts or too much rain at the wrong time. For example, paddy cultivators in the *Maha* of 1999-2000 suffered yield losses because of heavy rain during 'flowering', a sensitive development stage. Drought periods, blamed on jungle deforestation, can be alleviated with the help of agricultural wells but these are expensive to sink and demand costly motors and pipes. Subsidies and loan

schemes are available but as one farmer pointed out, the ability to repay is not assured and there is a risk that items can be taken away along with the money already deposited. Unpredictable weather conditions and water problems play an important part in on/off farm decision-making.

Pests and diseases

Protection of crops from pests and diseases is an on-going and expensive struggle. Inputs in the form of chemical pesticides (*behet* or medicine) are used on a number of different crops but success rates are negotiable. Attacks by wild animals such as birds, squirrels, monkeys and wild boar cannot be prevented, unless a household guards crops constantly, which necessitates labour. For example, during the last stages of paddy growth, a period which attracts, among others, birds and rats, household members will spend substantial amounts of their time rigging up scaring devices (see Plate 26) and watching for signs of attack. Farmers also need to be on guard against such pests as *panuwa* (worms) that burrow into vegetables like *brinjal* and okra; a stem borer that invades banana plants moving from one plant to the next, and a beetle which eats mature coconut palms from the inside out before it is discovered. A virus that attacks lime and orange plants has almost wiped out species that were once widespread and thriving in Moneragala district. There is no cure.

Labour

There is a lack of labour which affects, to a certain extent, decisions with regard to prioritising daily activities. Certain strategies can be employed such as *attam* (see Plate 11), sharecropping or allowing others to cultivate your land so that it is maintained. It is possible to hire labourers but they are few in numbers and

Plate 26

Fig.26.1: The maize has been attacked by parrots

Fig.26.2: A homemade device rigged up to scare the birds away from the paddy

Fig.26.3: Stem borers have attacked this banana plant

Fig.26.4: This coconut palm has been destroyed by a beetle

may be too expensive for the household budget. A male labourer costs Rs150 per day (roughly £1.30) and the employer must pay in advance and provide two meals, tea and areca nut. Weeding is a never-ending battle.

Market

There is a market every day in some part of the district. The most popular with villagers is the Medagama market on Thursdays and Moneragala market every Saturday and Sunday. A few farmers take their produce to the Moneragala market but many transport it, by bicycle or three-wheeler to Nakkala Junction where most of the buying and selling occurs before lorries arrive to transport it all to other markets. It takes a lot of time and effort to transport produce to market and a number of middle-men and women operate in the region buying fruit and vegetables, sometimes at very low rates. One 'trick of the trade' involves the middleman or woman agreeing to sell a farmer's *brinjal* at a set price but then returning from market saying that it sold for less money than originally agreed. The farmer then has to accept less money without knowing whether his *brinjal* was actually sold. Villagers also suffer from gluts in the market and a lack of control over pricing decisions can affect livelihood strategies.

Conclusion

This chapter presents a broad overview of my research setting. Sri Lanka is made up of several agro-climatic zones which encourages a diverse assortment of forest species, plantation, cash and subsistence crops within various, sometimes interlinking, farming systems. Moneragala district is considered to be

one of the poorest and most backward regions in Sri Lanka and has consequently attracted substantial outside investment particularly in the form of development projects. Despite this injection of resources and 'expertise', improvements are few possibly due to poor project design as well as Sri Lanka's political uncertainty (Moore *et al*, 1995:V).

It is important to recognise that a form of 'enforced' hierarchy exists in Sri Lanka which not only places Sinhalese Buddhists above other ethnic and religious groups (Kapferer, 1988), but is also responsible for reviving 'traditional' cultural practices "to provide ideological and moral support to the process of Sinhalisation" (Moore,1992a). As Woost points out:

> "'Development' has become a set of cultural activities encompassing everyday life across the class spectrum, from the swidden farmer on the frontier to the intellectuals in the academy to the elite official in the government itself. Having thus infiltrated all levels of society, the discourse and practice of development give fractions of the dominant power bloc in Sri Lankan society (which are often times in conflict with each other) a wide array of tools with which to cultivate Sinhala national identities" (1993:504).

He goes on to discuss how the three symbols of Sinhalese nationalism, the tank,[52] the paddy field and the Stupa,[53] form a "triad of nationalists development rhetoric about Sri Lanka's past, a past that is used as a model for the future, for 'true' development" (1993:504). In order to gain support for development projects from international donors and the rural population, many agencies (both government and non-government) have also resorted to invoking nationalistic images of a rural idyll, which inevitably involves notions of 'unity' and 'community' (ibid:506). However, despite all the difficulties that

[52] A tank is an artificial lake or water reservoir.
[53] A bell-shaped shrine found in most Buddhist temple complexes.

householders face, including a tense relationship with the outside world which permeates into every aspect of their lives, they continue to cultivate strategies for survival. There is no doubt that the choices people make on a day-to-day basis are linked in some way to the topics I have covered in this chapter whether it is related to belief systems, social networks, land issues or all of the above. Understanding the complex, local environment in which decision-making operates cannot and should not be underestimated as this has important implications for any attempt at sustainable development, including the rubber-intercropping project.

3

Indigenous Knowledge Research in Development

This chapter will examine the role of indigenous knowledge research in development. Epistemological issues surrounding the term 'knowledge' are bound to be contentious, particularly when used in the context of 'sustainable' or 'participatory' development. Nevertheless I need to address such issues in this and subsequent chapters when discussing my fieldwork and the part the project team played in attempting to locate 'indigenous technical knowledge'[1] at several rural locations. It is also important to place the rubber-intercropping project within the context of indigenous knowledge research[2] in development because it was funded by the British Department for International Development (DFID), which currently identifies with the ideology behind such 'buzz words' as sustainability, participation, indigenous knowledge and empowerment.

I shall be looking at indigenous knowledge and farm management, particularly in relation to soils and intercropping, and will attempt to combine project aims with a review of what is going on in the villages. I will also be asking what, according to both local and academic 'experts', constitutes indigenous knowledge and how does this relate to villagers' thoughts and actions. Further

[1] This was one of several terms used in the original grant application. However indigenous technical knowledge was increasingly used during team meetings.

[2] As Sillitoe points out there is a "...range of other terms to be found in the literature for indigenous knowledge, vying for prominence and claiming to be more representative of whatever it is this field is taken to encompass. They include local knowledge, popular knowledge, rural people's knowledge, indigenous technical knowledge, traditional environmental knowledge, folk agricultural knowledge" (2000c:145). However when discussing my own work I will use the term indigenous knowledge.

epistemological problems will emerge when I question (one of) the project's aim(s) of finding and filling 'gaps' in 'knowledge'.

What is Indigenous Knowledge?

It is useful to consider what indigenous knowledge represents (and what it does not) to those who move in development circles. Burkey believes that the participatory process in development is intended to 'empower' local people through means whereby they increase "knowledge of themselves and their situation and, with this knowledge, gain greater control over their lives through action emerging from the research" (1993:63). Sillitoe addresses current concerns with defining indigenous knowledge, particularly in the face of contemporary globalisation[3] stating that:

> A common misapprehension is that the term indigenous knowledge refers to some notion of traditional, untrammelled 'other' knowledge, the property of homogenous culturally independent communities that maintain intact some local tradition pertaining to soil fertility or whatever, unaffected by foreign ideas (2000c:147).

Purcell also questions the term 'indigenous' (taking it to mean people and their knowledge) claiming that it was created by colonialism and that the decision who is 'indigenous' depends on political issues and policies (1998:259).[4] He adds that:

> Indigenous knowledge is no longer confined to knowledge systems associated with people whose indigenous status is defined by ancestral territory. As colonialism uprooted indigenous peoples, it also uprooted their knowledge systems...the focus on indigenous knowledge, therefore, now includes a more general examination of local culture and its role in planned change (1998:266).

[3] See also Antweiler,1998; Sefa Dei *et al.*, 2000; Sillitoe *et al.*, 2002.
[4] See also Béteille, 1998.

Mundy and Compton warn that there is a distinction to be made between 'knowledge' and 'information' believing that, "knowledge is the process of knowing, of individual cognition. It cannot be communicated but is created in the minds of individuals as a result of each persons perceptions of the environment or through communication with others" (1995:112). Knowledge must be encoded into language before it can be transmitted. But tentative suggestions have been made as to what this 'knowledge' can encompass particularly in the range of physical, social and cognitive sciences where "indigenous knowledge names, classifies, compares and/or analyses...plant crops; soil and land types; soil fertility; fish; trees; and medicine; or provides keys to planting dates or weather prediction techniques" (Wickham,1993:15). Haverkort describes indigenous knowledge as different to scientific knowledge (i.e. not abstract), as it relies on intuition, historical experience and observable evidence (1991:7). Antweiler believes that such knowledge includes "...in the broader sense...the social management of information, the forms of learning and teaching...as well as the alternatives which people see, and their decision-making routines" (1998:447).

In Sri Lanka there has been a growing interest in indigenous knowledge and the role that local people can play in rural development. Handawela (2001)[5] discusses the range of what he considers to be indigenous knowledge practices across the island, stating:

> "It includes many ecological aspects, such as water management, landscape, climate and seasonal differences. Traditional agriculture practices included mixed cropping, the association between trees and

[5] Handawela's research was carried out in conjunction with four NGO's in Sri Lanka who took part in a COMPAS initiative. The COMPAS network spans over ten countries and is interested in supporting endogenous development (see Haverkort and Hiemstra, 1999).

> crops, soil identification practices...and the use of plants for crop protection, medicines and natural fertiliser...indigenous knowledge systems in Sri Lanka have three main components: the ecological/agricultural, the spiritual, and the astrological" (p.44).[6]

However Upawana and Wagachchi warn that since the advent of westerners, indigenous systems have started to disappear. They believe that farmer populations in Sri Lanka have mostly adopted modern technologies "that are often directly antagonistic to astrology, supernatural beings and the ecosystem" (1999:117-118).

Some Problems with Indigenous Knowledge Research

It is true to a certain extent that a lot of 'traditional' practices have largely been substituted by more 'modern' (and often unsustainable) practices, as younger generations have increasingly been drawn into the global arena. At the same time, however, we have the problem of trying to establish what exactly the term 'indigenous knowledge' encompasses. Weeratunge (2000) notes that western conceptions of a sustainable environment in Sri Lanka which incorporates the notion of 'living in harmony with nature', is compounded by the fact that 'harmony' and 'nature' are not commensurable with local terms. She asks:

> "Where do Sri Lankan environmentalists get the idea of living in harmony with nature?...It has been conventionally associated with the idea of the 'Noble Savage', attributed to Rousseau and thus originating in the West...'harmony' and the 'Noble Savage' have been appropriated and transmuted in the process of borrowing. The Noble Savage in Sri Lankan environmentalist discourse has become not the 'tribal primitive' but the Sinhalese 'peasant', heir to 2,500 years of agrarian civilisation" (ibid:253).

Indeed, the highly charged political situation in Sri Lanka often means that notions of 'harmony' and 'unity' are associated with the Sinhalese peasant

[6] See Chapter 2 for a discussion of spiritual beliefs.

farmer in order to promote nationalist (Buddhist) ideologies. Such ideologies spill over into many rural development programs today (Woost,1993). Sillitoe (2000:9) believes that a "tendency to see indigenous knowledge as saving cultural property from being lost may be related to deep-rooted identity issues".

As the debate continues over what can be contained within 'indigenous' knowledge a number of epistemological and methodological problems have also been identified. DeWalt expresses concern over the pervading fashion for thinking of local or indigenous knowledge systems as a 'truth' that can solve the world's problems (1994, see also Antweiler,1998; Thrupp1989). Sillitoe, like Corbridge (1995), also warns against an idealisation of this type of knowledge stating that; "indigenous knowledge often facilitates people's skilful management of their resources...[but] it may be inadequate, especially in situations of rapid change" (1998b:227). While 'sustainablity' and 'local knowledge' (in its idealised form) are key buzz words in development, researchers may find that farmers are using unsustainable technologies (such as inorganic chemicals) to solve their immediate problems (Bentley,1989; Sillitoe,1998b). Most agree that human values must form an important part of any development 'model' or 'strategy' (see Gabriel, 1991, Wickham, 1993, Burkey,1993). However, Corbridge makes it clear that by joining the populist and neo-populists in praising "the virtues of rural life and indigenous forms of resource management" criticism may follow such as accusations of romanticising reality (1995:9).

So, defining what indigenous knowledge represents, and in which contexts (e.g. indigenous and sustainable) without 'romantic' idealisation is problematic. However, further difficulties exist in trying to find and interpret this 'knowledge'. Haverkort believes that it is necessary to carry out long-term participant observation in order to "learn to farm as they do, learn the decisions that are made, to learn exactly what they are doing and, thereby, discover the wisdom in their methods"(1995:6). Sillitoe, though, highlights a number of problems that can occur during interpretation. For example, the researcher may be faced with explanations of phenomena, which are difficult to translate into scientific theory. "If one is a farmer one just knows; one is not used to being asked what or how" (1998b:229). Antweiler raises a pertinent problem when he addresses the fluidity of local knowledge. As he points out:

> "Assuming by definition the term 'local knowledge' does not refer to a static system of local cognition on issues of low level change like, e.g. flora and fauna of natural forests, but refers to a dynamic process of acquisition and integration of contemporary information and experience, the question arises how local knowledge can effectively be applied and further developed in view of a sustainable development process" (1998:472).

Also, if we return to Burkey's (1993) statement on how knowledge should empower local people, we can incorporate an understanding of the implications of intellectual property rights[7] and the simple fact that local people may not want to 'share' their knowledge with strangers (Thrupp,1989:16).

If the processes of negotiating with local people and then finding, interpreting, translating and packaging indigenous knowledge are so problematic we may

[7] Brown highlights the dangers of exploitation without intellectual property rights: "Commercial interests from the developed world prospect for information available in the unprotected public domain of indigenous societies. Then, by invoking prevailing law, they sequester the information in the protected, private realm of copyrights and patents, where it becomes a monopoly from which they alone profit" (1998:195).

ask why those interested or working in development are so concerned with 'doing' it. Antweiler claims that; "a great deal of hope has been attached to the 'discovery' of local knowledge. This is especially true in development aid, after so many attempts have failed" (1998:484). There has been criticism of the privileging of 'universal' scientific knowledge over local systems (Apfel-Marglin,1996; Burkey,1993) but also a recognition that; "the localised relevance of indigenous knowledge is a significant barrier to its incorporation into the development process"(Sillitoe,1998b:227). DeWalt claims that agricultural scientists are wary of the implication that "all we need to do is learn the local knowledge systems of farmers and we will have the many answers to development ills" (1994:123). Nevertheless, the incorporation of local peoples' knowledge in the research process can increase the relevance and the impact of development projects. As Sillitoe points out:

> "It is now recognised that research in less-developed countries is not just a question of coming up with technological fixes to others' problems, passing along scientifically validated information for them to adopt. It is increasingly acknowledged beyond anthropology that other people have their own effective 'science' and resource practices and that to assist them we need to understand something about their knowledge and management systems" (1998b:223).

My research into the livelihoods and farming practices of villagers in Mediriya, Therrapahuwa and Walamatiara not only demonstrated various levels of decision-making but also highlighted problems associated with trying to distinguish between different 'types' of knowledge. The dilemma over whether knowledge can be indigenous if it is 'modern' rather than 'traditional' is one such perplexing example in a world that is rapidly being overtaken by the forces of globalisation. Sillitoe argues that, "Rural peoples' understanding of natural

resource management issues is a blend of knowledge from various sources, which is difficult to disentangle" (2002:13). This is no more so than in Sri Lanka where 'modern' farming practices are combined with spiritual and astrological beliefs and rituals. Knowledge in relation to farming often involves a mixture of advice handed down through the generations or exchanged between neighbours and kin as well as recommendations from the extension officer or agricultural department and individual experimentation. Nevertheless, during a presentation I gave on my research at the Sri Jayawaradena University in Colombo, participants at the workshop pondered over the 'indigenousness' of knowledge relating to rubber. They decided that as outsiders had introduced the plant and maintenance was controlled by Government recommendations (through the subsidy scheme) the label indigenous could not be applied to it. However, as I have already noted, indigenous knowledge is not static or immune from the worldwide effects of diffusion. Handawela points out that in Sri Lanka it is generally "impossible to differentiate farmers into IK and non-IK categories. All farmers [practice] a mixture of IK and non-IK applications, though in different proportions" (2001:45).

Research into indigenous knowledge and farming in the field typically involved learning about many aspects of the natural environment including an assessment of soils. While enquiries into local understanding of the environment cannot be separated from its socio-cultural context, soil seemed to be an important criterion in farmer decision-making. Thus it was also important that any study of indigenous knowledge in relation to rubber and intercropping practices incorporated local ideas on soils.

Indigenous Knowledge in the Field

To understand decision-making in relation to farming practices it became clear, as my research progressed, that soil is significant, not only in terms of the acreage of any smallholding but also in its soil quality. In Mediriya, Therrapahuwa and Walamatiara, villagers offered explanations using terminology that provided an explicit picture of the attributes linked to the soil (see Table 10). This was also associated, invariably, to fertility and in some cases the remedy needed to restore 'health'. Something that I had not realised earlier was that in any one area, whether measured in square feet or acres, soil was not homogeneous. Besides the effect of shade from surrounding plants, decisions had to be made in relation to a plant's ability to tolerate certain traits in the land. A discussion of soil variability is also relevant to ideas of sustainability. As Reginald points out:

> "The foundation of sustainable agriculture is a healthy, fertile soil, on which the rest of the farm ecosystem depends. Soil is not just another instrument of crop production, like pesticides, fertilisers and tractors. It is a complex, living and fragile medium, which must be protected and nurtured to ensure its productivity, stability and sustainability" (1992:1).

It would demand too much space to provide anywhere near a complete taxonomy of soil types in the region. While the basic colours of brown (*dumburu*), red (*ratu*) or black (*kalu*) were usually cited, many other variations in soil properties were also given to convey a more complete picture of the level of cultivation that could be expected and whether the soil was considered good or bad. For example, the ease with which the land could be tilled and maintained is often an important consideration and can be linked to ideas surrounding

Table 10

Soil Terms

Ratu pas	Red soil
Kalu pas	Black soil
Dumburu pas	Brown soil
Borrulu	Made up of small stones
Ratu pas velli missera	Red soil mixed with sand
Velli kudugala missera hondai passa nae	Mix of sand and stone, soil is not good
Lakekata nae	Lack of uniformity (not good)
Seetali	Cold (in relation to damp soil)
Ooshnay	Hot (in relation to stones in the soil which heat up)
Vedi hadan nae	Does not make much (soil is infertile)
Karamati	Clay soil which is loose and dries quickly (red or black in colour)
Kirimati	Clay soil which is compact and sticky (white in colour)
Mada mati	Refers to sticky clay soil
Keta keta, sinidu	Refers to soil that is crumbly and soft
Saruak nae/saru nae	Refers to infertile soil
Pas adui, ketagala missera	Mixture of stone, not enough soil
Loamy	Gray in colour, made up of earth, sand and leaf litter
Sudu paata makul	White colour clay
Gal missera karamati	Mixed stone and clay
Kabook	Hard sandstone
Saluta pasa	Sandy soil

location, water retention, temperature (of the soil) and fertility. This frequently depends on the soil composition, that is, whether it is mixed with clay, sand or stones. When walking through a smallholding, general descriptions of soil type given by a farmer could include, "*ratu pas vali missera*" (red soil mixed with sand) or "*vali kudugala*[8] *missera, hondai passa nae*" (mix of sand and stone, soil is not good). Another term, "*Lakekata nae*", translates as lack of uniformity meaning that the soil is different everywhere. Placed within the context of a discussion on a particular home garden this label signified that soil is 'not good'.

Whilst there was no overall unanimity in relation to any one soil type each description given would highlight whether it was good or bad for certain species in that particular location. This was especially relevant for an understanding of rubber growth and the success (in terms of yield) of intercrops. More often than not the stunted growth of rubber[9] trees was blamed on lack of maintenance (i.e. not weeding) but this was not always the case for there were many other factors, not least of which was the condition of the soil, that could affect growth.

Soil Resources in Therrapahuwa

Where land is of higher elevation and marked by the presence of large boulders in Therrapahuwa village, conversations about soil emphasized the overwhelming presence of stones. During one visit to a smallholding at the base of Therrapahuwa Mountain, Hamapala (Household 19), when asked why some rubber plants looked smaller and weaker than others, attributed this to stones in

[8] A white stone that crumbles easily into powder.

[9] The Rubber Development Department specified what the girth of the trunk should be over the six years before maturity. Farmers, whose rubber trees failed to meet the specified girth size for that year were not entitled to receive that year's subsidy. To be entitled to the final instalment of the subsidy in the sixth year, 70% of the trees within one acre must have a girth size of 20 inches at 5ft with no side branches.

the soil. Sudubanda (Household 21), who also farms on the mountain complained of the difficulties in cultivating in Therrapahuwa pointing to his son's land in Walamatiara where he considered the red soil to be good because it is stone free. Abeyasingha (Household16) believes that the stony soil is detrimental to water retention (i.e. droughty) and thus the ground dries quickly. Seelavathi (Household 22) related this to the temperature of the stones and how, in the dry season they became very hot (*ooshnay*). This, she claims, makes it difficult to grow banana, as the plant needs water. Her husband, Gunasena, also believed that coconut growth would not be good in stony soil possibly for the same reason. On one acre of rubber land (see Diagram 4) in the heart of Therrapahuwa belonging to Dharmawathi (Household 15) I was shown some variations in soil content, which affected the growth of banana. On a steep incline strewn with boulders of varying sizes two distinct areas were evident. One was marked by *boralu* soil, which is made up of small stones. Dharmawathi said that this soil was 'difficult' to cultivate, especially for banana. The other area had brown, fine sandy soil, which, she said, was 'like sugar' and better for plant growth.

To say that the soil is cold (*seethala)* is also to infer that it is wet or moist and vice versa. On one smallholding in Therrapahuwa, planting decisions were made on the basis of water retention as well as stones in the soil. Dharamadarsa (Household 20) established coffee in front of the house near the stream because the plants need moist soil. However lime was planted behind the house near the mountain (in stony soil) as this citrus tree can, in his opinion, tolerate dry land (see Diagram 5).

Soil Resources in Mediriya

Whilst Therrapahuwa is the oldest village, it is also the most sparsely occupied possibly because of the difficult terrain and the distance from Nakkala junction. Mediriya, on the other hand, is the most densely populated and in the forty years since sedentary farming replaced shifting cultivation, soil quality has been of some concern. "*Vadiya hade ne*" was an expression I frequently heard here in relation to the land, meaning, "it does not make much".

Land located near the river in Mediriya (see Map 6) is primarily made up of clay, the most common terms for it being *karamati and kirimati*[10] depending on the colour and texture. Here I learnt that soil which is sticky as opposed to loose, is generally considered to be 'bad', largely because it is difficult to clear and maintain. Piyarathna (Household 2) claimed that the clay soil on his land had poor water retention despite being near the river because the soil was not loose.[11] Clay soil is also associated with fertility. During an informal discussion one evening I asked Sriyani (Household 13) what she thought to be fertile and infertile soil. She answered that based on her experiences fertile soil was a mixture of red and black in colour, made up of pieces (*keta keta*) and soft (*sinidhu*) in texture. Infertile soil is made up of sticky clay (*mada mati*) and she added the term *"saruak nae"* meaning no fertility. Somipala (Household 7), on the other hand, described infertile soil as containing "*pas adui, ketagala missera*" (mixture of stone, not enough soil). Sudu Kumari pointed out that the growth of *illuk* (grass), as opposed to guinea grass, also indicated that soil was infertile.

[10] *Kiri* means milk but is also a term used to describe the milk white colour.
[11] Clay can hold a large volume of water but when it dries out beyond a certain point, it is difficult to get any water out of it.

Away from the river, soil type in Mediriya varies considerably. Descriptions can encompass the different layers as you dig down. Wimalarathna and Siriyavathi (Household 11) outlined the variation of soil in their rubber land in terms of a top layer, *karamati*, which is black in colour while underneath you find, *kirimati*, which is white. These are two types of clay-based soil with the top layer described as fertile but having the disadvantage of drying quickly (fairly loose but poor water retention) whilst the bottom layer was characterised as being wet and sticky (compact and therefore bad).

Some of the villagers from Mediriya have spread their cultivation to the elevated land across the river. Most of this land belongs to the temple. Jayasingha's household leases three acres directly adjacent to the Kumbukkan Oya (River). They explained that the brown sandy soil[12] was *seethala* (cold or wet), which is 'good' because of water retention. The land is not difficult to weed and maintain but there are drawbacks in that it is easily eroded. They had already lost an acre, including mature coconut palms and ancient *kumbuk* trees, to the river.

Soil Resources in Walamatiara

A narrow village wedged between the river and Therrapahuwa Mountain, the land in Walamatiara is characterised by clay soil on one side (near the river) and sandy or loamy[13] soil on the other (near the mountain) with wide variation in between. Somalatha (Household 27), whose smallholding is located at the

[12] Ashton *et al.* have termed this type as "non-calcic brown soils" stating that; "They are most common in Kurunegala, Puttalam, Ampara, Batticaloa and Moneragala areas. These soils occur wherever the parent rock is deficient in iron and magnesium, and are particularly vulnerable to erosion" (1997:7).

[13] An elder of the village explained what was meant by the term loamy soil. He said it was loose and fertile because it was made up of earth, sand and decomposing matter (litter layer). However because of soil erosion this layer has gone. It only remains up to a year after the jungle has been cleared.

Diagram 4

Household 15: Smallholding

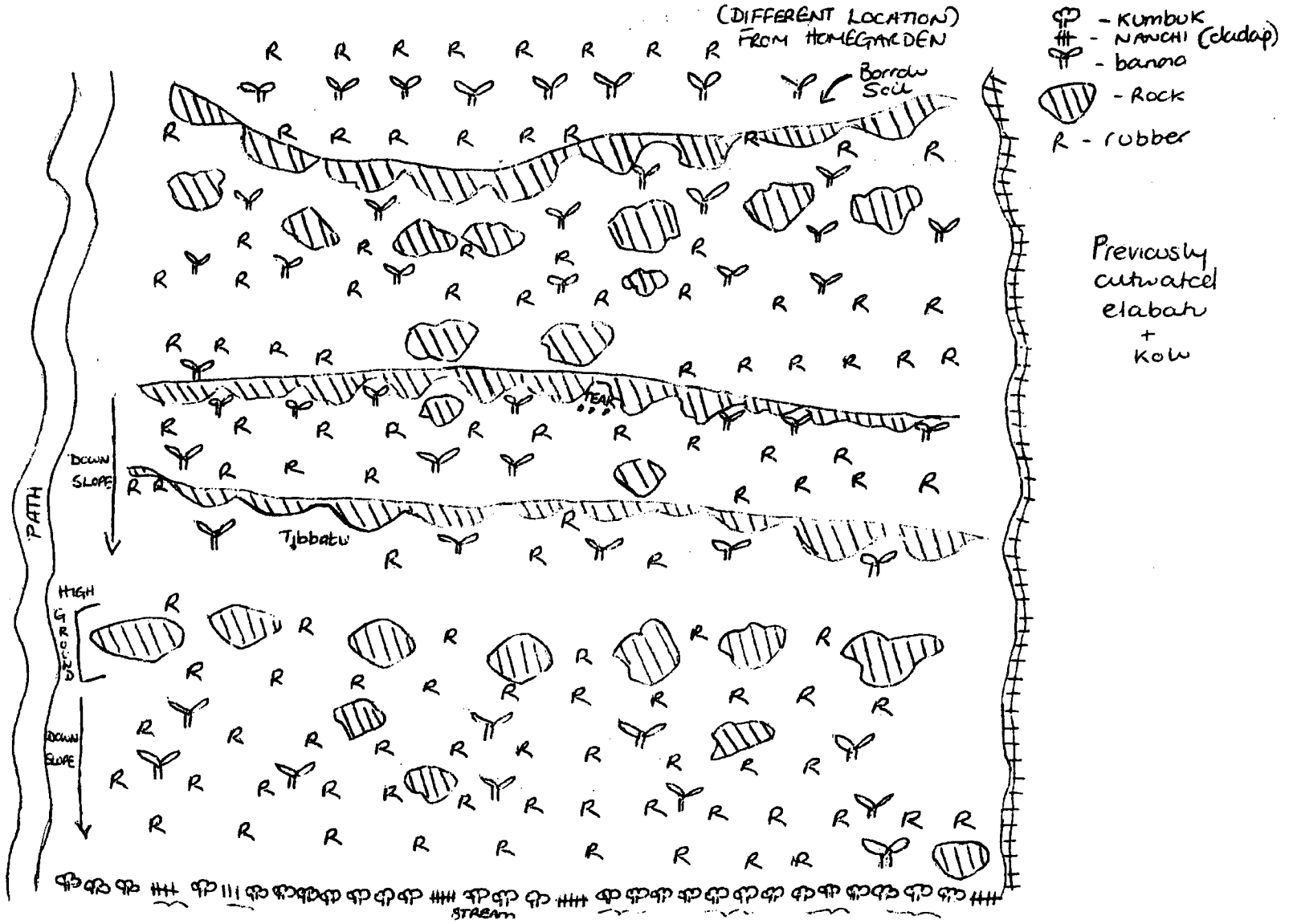
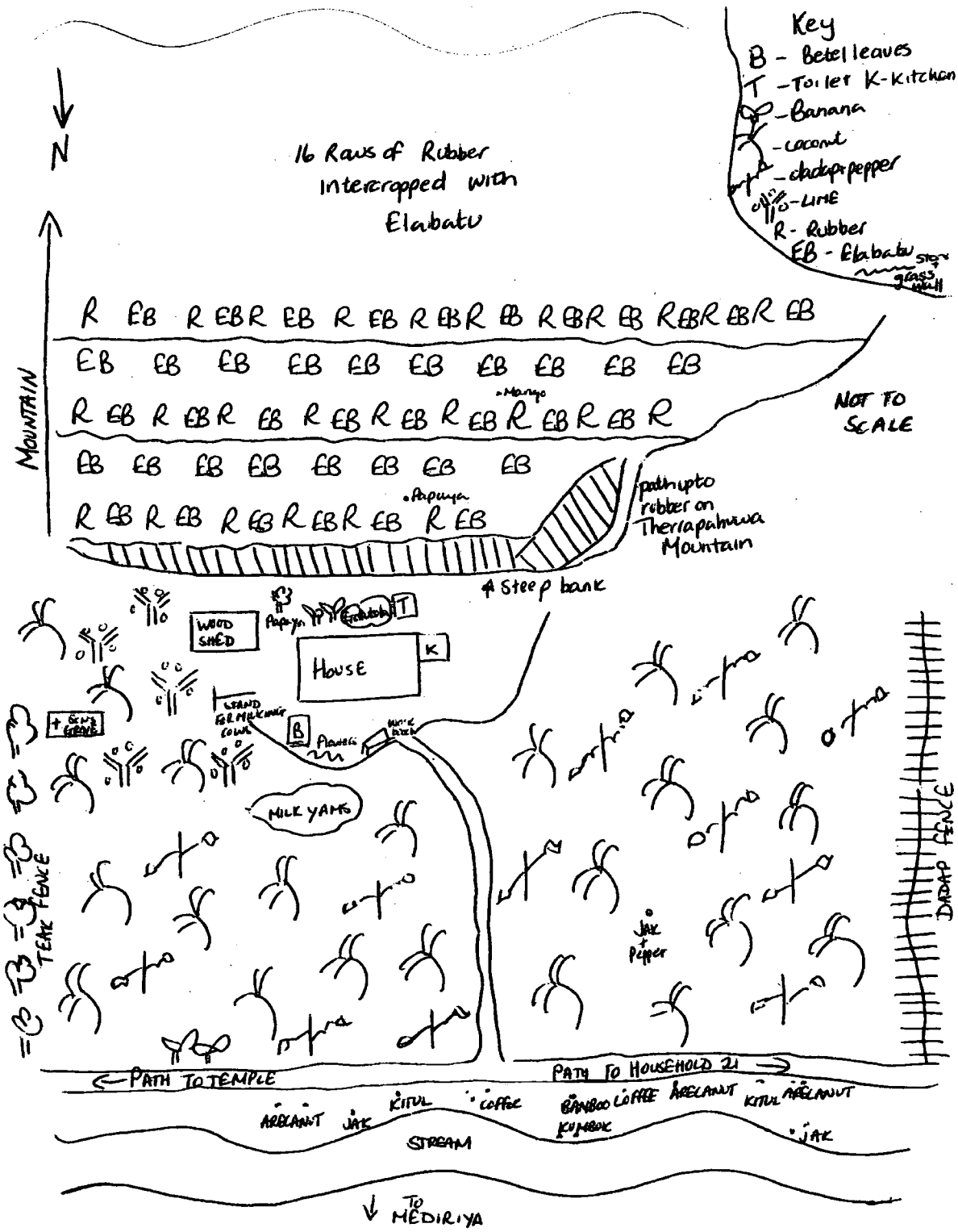


Diagram 5

Household 20: Home Garden and Smallholding



Note: Elabatu was chosen as an intercrop for the rubber because it is thought to grow well in stony, mountainous soil.

base of the mountain, highlighted how the growth of plants behind her house, where the soil is loamy (grey colour), is far better than in front where the land is made up of clay or *karamati* and *kirimati*. She attributed the loamy soil to the *pohora* (translates as fertiliser but she is referring to the topsoil) that came down from the Mountain. The clay soil, on the other hand, became very muddy in the rainy season. If vegetables were planted the roots would decay in the waterlogged soil. Somalatha also outlined how the condition of the soil affected her decision-making. While walking around the smallholding she pointed to a plot near the border between her land and Dharamasiri's (Household 26). She explained how the top layer was sandy but underneath it was "*sudu pata makul*" (white colour clay). Following years of experimentation she said that plants such as cowpea, long beans, maize and *kolu* (a cereal) could survive but not perennial crops such as coconut, banana and lime because of their long roots.

Clay soil in Walamatiara, as in Mediriya, was often described as *"saru nae"* (not fertile). One farmer claimed that the clay soil on his land was so infertile there were no worms to be found, implying that worms needed fertile loose soil to live in. Another farmer whose land was dominated by a topsoil, which he described as black and fertile over a horizon of *karamati*, recounted how he tried to remove as much of the clay soil as he could when digging pits for cocoa, replacing it with the topsoil and earth from his home garden.

Most of the households in Walamatiara that were located near the mountain divided their land into three sections. Starting from the road, the soil was made up of clay, normally of a black or red colour (*karamati*). Nearer to the mountain,

where the jungle was only recently cleared, the soil would often be labelled as loamy. Some households had spread their cultivation up the mountain and described the soil as gravely or containing stones. Rathnayake (Household 31) cultivated *brinjol* on a recently cleared plot on the mountain (see Plate 27). He could not dig holes for larger plants such as rubber because of the stones.

Even though land near the river is largely made up of clay, there were some variations. In some cases the soil content of one smallholding could have an impact on another. Gnanawathi (Household 36) has two acres of land on the side of the river near the road (see Diagram 6). One acre had recently been planted with rubber and a number of short-term intercrops. However, the plants on one side of the plot seemed a lot taller and healthier than on the other. I asked why and she pointed to the 'unhealthy' side where she described the soil as made up of *gal missera karamati* (mixed stone and clay) with *kabook*, or hard sandstone around 1.5 feet down. The other side of the plot was made up of *saluta pasa* (sandy soil) with *sium* or fine white sand (found by the river) underneath. Gnanawathi believed that the stones had come from the neighbouring land through erosion.

How to Keep the Soil Fertile

Fertilising the soil is thought to be necessary for farming in the villages of Mediriya, Therrapahuwa and Walamatiara. This is attributed to the demise of *chena* or shifting cultivation where land would be left fallow for around fifteen years to allow it to recover from nutrient loss. Following many conversations with villagers where I tried to discover how you could keep soil fertile, a new

perspective emerged. While I had associated soil fertility with the input of chemical or organic fertilisers, my interviewees patiently explained that one of the key factors in keeping soil fertile was to stop the soil running away. Building small walls from stones or vegetation[14] at various intervals could minimize soil erosion as well as drains which are cut across the land, and can either help retain or get rid of moisture in the soil (see Plate 28). However soil erosion prevention methods require time and labour. For many the addition of fertiliser was a labour saving option as well as increasing yields.

Pinstrupp Anderson argues that; "fertilisers have contributed more to the improvement of crop yield in developing countries than any other individual factor of production during recent years" (1982:148). The use of fertiliser is intricately tied to current concerns in development with sustainability and the dilemma surrounding chemical use. As Chin-Chaokoh points out:

> "The large amounts of chemicals being used are a danger to human health and the environment. They are also costly for the farmer, and farmers in Asia, like farmers everywhere, are trying to reduce their production costs" (1992: preface).

However Chin-Chaokoh also notes that the 'traditional' farming methods of the past which included the use of organic fertiliser would not give a high enough yield to feed all the population. In a discussion of organic farming he states; "such systems appear to be less suitable for a tropical country because of the very rapid breakdown of organic matter in the humid tropics" (1992:preface).

[14] Some farmers pointed out that a double row of vegetation with a little gap in between was needed for every row that was made out of stones to compensate as the branches and grass may not be strong enough to hold the flow of soil.

Cash crops such as *brinjal*, chilli and maize usually warrant the purchase and use of inorganic fertiliser[15] like urea and *tedium*. The decision as to when and which fertiliser should be applied vary from one farmer to the next. However for *brinjal* and chilli some people recommend that urea be used until the plants flowered and then *tedium* should be applied. Those who can afford it also use an additional vitamin supplement called 'Vegimax'. This costs 100 rupees for 30ml and is applied to cash crops such as *brinjal*. Rathnayake said that it had been recommended by the Agricultural Department. Inorganic fertiliser was also used for paddy cultivation. Urea is normally applied after fourteen days and tedium 40-45 days or 55-60 days after sowing depending on whether the HYV (High Yielding Variety) used is a short (3 months) or long-term (4 Months) variety.

However, many do not depend on chemicals alone. Harvested paddy stalks (*ipinelle*) and green leaves from trees such as *dadap* are often mixed into the paddy terraces before ploughing. Most farmers explained that the same crop could not be planted on the same land every year because the plot did not have an endless supply of nutrients. As Anula pointed out some plants want nitrogen and phosphorus whilst the next year other crops need different nutrients. Some farmers plant nitrogen-giving crops such as green pea or long bean between the main cultivation periods.

Even though fertilisers are often a quick and easy solution to the problems of infertility, farmers also recognised the disadvantages of using chemical inputs.

[15] This is in addition to fertiliser that is provided by the Agricultural Department for subsidized cultivation such as rubber.

They highlighted a number of problems. In particular the use of inorganic fertiliser encourages a vicious cycle where crops become dependent on the chemicals to yield adequately. Wimalarathna uses compost, made out of cow dung and leaves, on his betel leaves (see Plate 21).[16] He made the point that compost is controllable and lasts longer than chemicals, which, if used, is needed every month. Farmers claim that pests and weeds such as *kalenduru*, a grass, which is notoriously difficult to eradicate, also increases with the use of chemical fertilisers. Such reports are based on observation and experience. Out of all of my informants in the three villages only Susantha's (Household 28) household did not have problems with pests and weeds attacking their paddy. They had not used any chemical inputs stating that fertilisers brought other diseases. However this household could shoulder the risk of lower yield as Susantha had worked for the government for a number of years and was in receipt of a pension. He also had a son in the navy.

Aware that chemical fertilisers posed a threat to health[17] and the environment, farmers use organic methods when it is practical. When digging pits for large plants they often put a layer of organic material such as coconut husks or *dadap* leaves in the bottom, which are considered nutritious for the crop (see Plate 29). Ash, paddy stalks and other grass would also be mixed in with soil.
However farmers also recognised that it was difficult avoiding inorganic inputs. Other than paddy and important cash crops like *brinjal* much of the cultivation in these villages did not warrant the use of chemical fertilisers. For example, most villagers felt that banana growth would be good if fertiliser was applied but

[16] It is chewed with arecanut (see Plate 21).
[17] I was warned by one villager not to buy large tomatoes at the market because their size was directly attributable to the amount of chemical fertiliser used. Small tomatoes were safer!

nobody actually carried this out in practice. Sudu Kumari explained that banana was "*milla nae*" (cheap) and income from the sale of banana was not enough to purchase fertiliser.

Factors Affecting Decision-Making

The content and quality of the soil in any one smallholding was obviously not the only element that affected decision-making on-farm. Factors such as spiritual beliefs (Chapter 2), political connections (Chapter 4) and illness in the family can also play a part in the success of farming ventures. However, in a number of cases, local knowledge of soils clearly influenced choice and location of crops and could be used to explain why some cultivation thrived or failed. Land designation is not always so clear-cut however. This became evident during a discussion in Walamatiara with Somalatha over the transplanting of four orange trees. Two had been planted near the front of the house and the other two behind it. The ones behind had not flourished as well as the plants at the front even though she had classified the soil as poor. Clearly soil type and quality was not the only force at work and other factors such as water and shade also need to be considered. Case Study 2 is a good example of how soil quality, availability of water and shade qualities of plants can play a part in decision-making.

The availability of water or expectations of rain play a part in farmer decision-making particularly with regards to what could or should be planted and when. For example, Somalatha and her husband had cleared an area of their land and burnt the weeds with the intention of ploughing and planting pumpkin but they

had to abandon this as lack of rain meant they could not plough. It is because of the lack of a secure water supply coupled with uncertainty surrounding the weather[18] that villagers continually experiment, using their knowledge of the local environment to try and successfully cultivate vegetables, rice and other income-generating species.

To learn more about local farming practices it was useful to have an understanding of soil composition and quality from the villager's point of view. There were cases where the choices that farmers made over what to plant and in which location was influenced in some way by the soils on their land, a topic the project scientists were particularly interested in especially as this might have some bearing on intercropping practices. In this region, where *chena* cultivation used to predominate, farmers are well aware of the potential of mixed cropping. Thus, in order to appreciate what farmers 'know' about intercropping, it was necessary to also look at what they were doing elsewhere in their gardens and smallholding.

Indigenous Knowledge and Mixed Cropping

The homegarden (*gewatte*) in Sri Lanka, especially in the Kandyan region, has been a popular subject with natural scientists as a research subject over the years (Perera and Rajapakse, 1991; Nuberg *et al.*, 1994; Wagachchi and

[18] As I have already highlighted in Chapter 2, the necessity for rain was intricately tied to folk beliefs and Buddhism. Most villagers talked of the 'seven day rains' in January named *Duruthu* after the *poya* (full moon) day that month (but which has not occurred in the past few years). In fact rains were expected around *poya* every month and particularly during large processions (or *peraheras*) held in Kataragama and Kandy where, it is said, water-cutting ceremonies would bring rain.

Plate 27

Fig.27: The Mountain has been cleared in Walamatiara for *brinjal* cultivation.

Diagram 6

Household 36: Home Garden and Smallholding

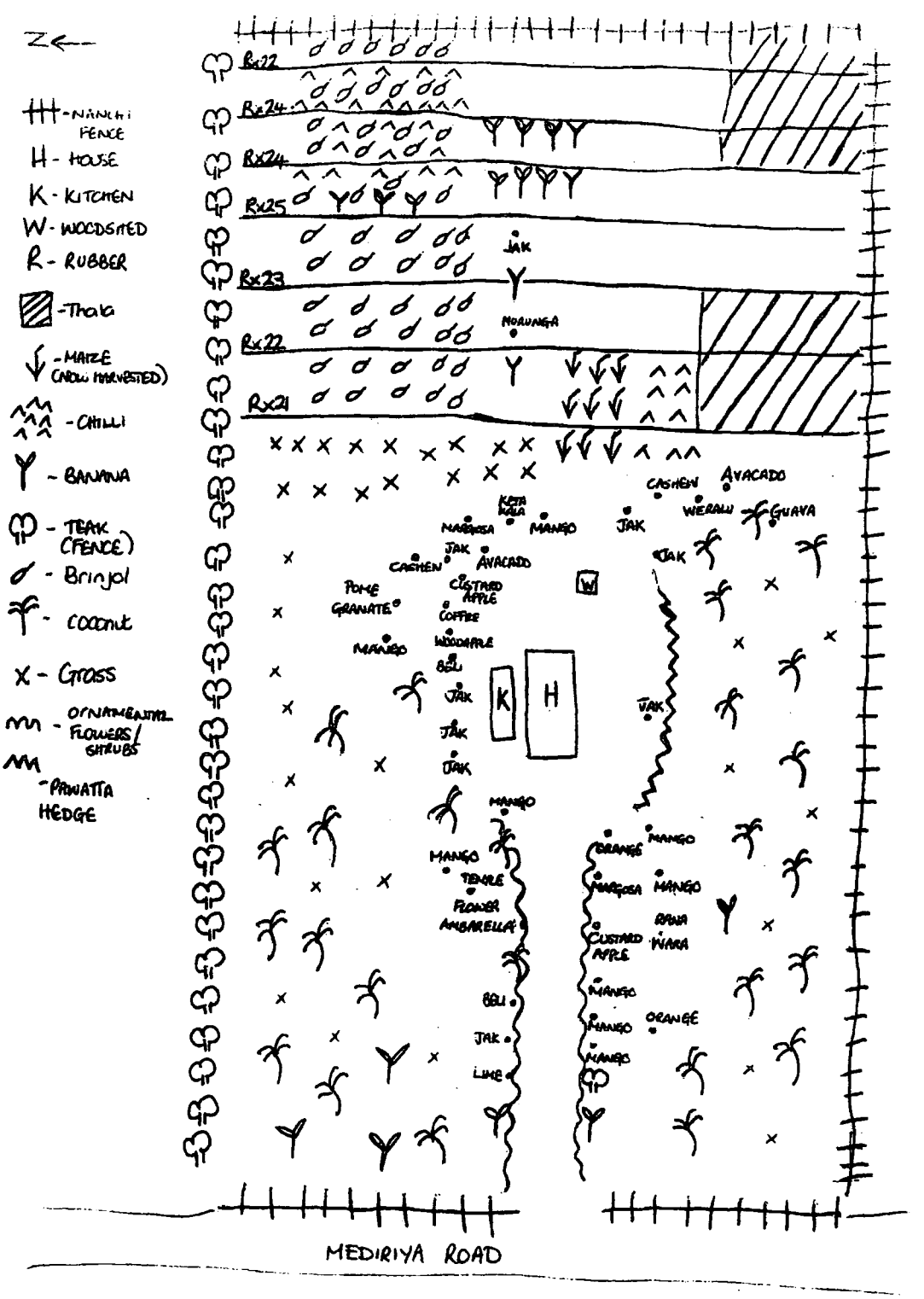


Plate 28

Fig.28.1: Rubber land with a drain.

Fig.28.2: Barriers are put in place to prevent soil erosion.

Plate 29

Fig. 29: Leaves placed in a pit act as a fertiliser.

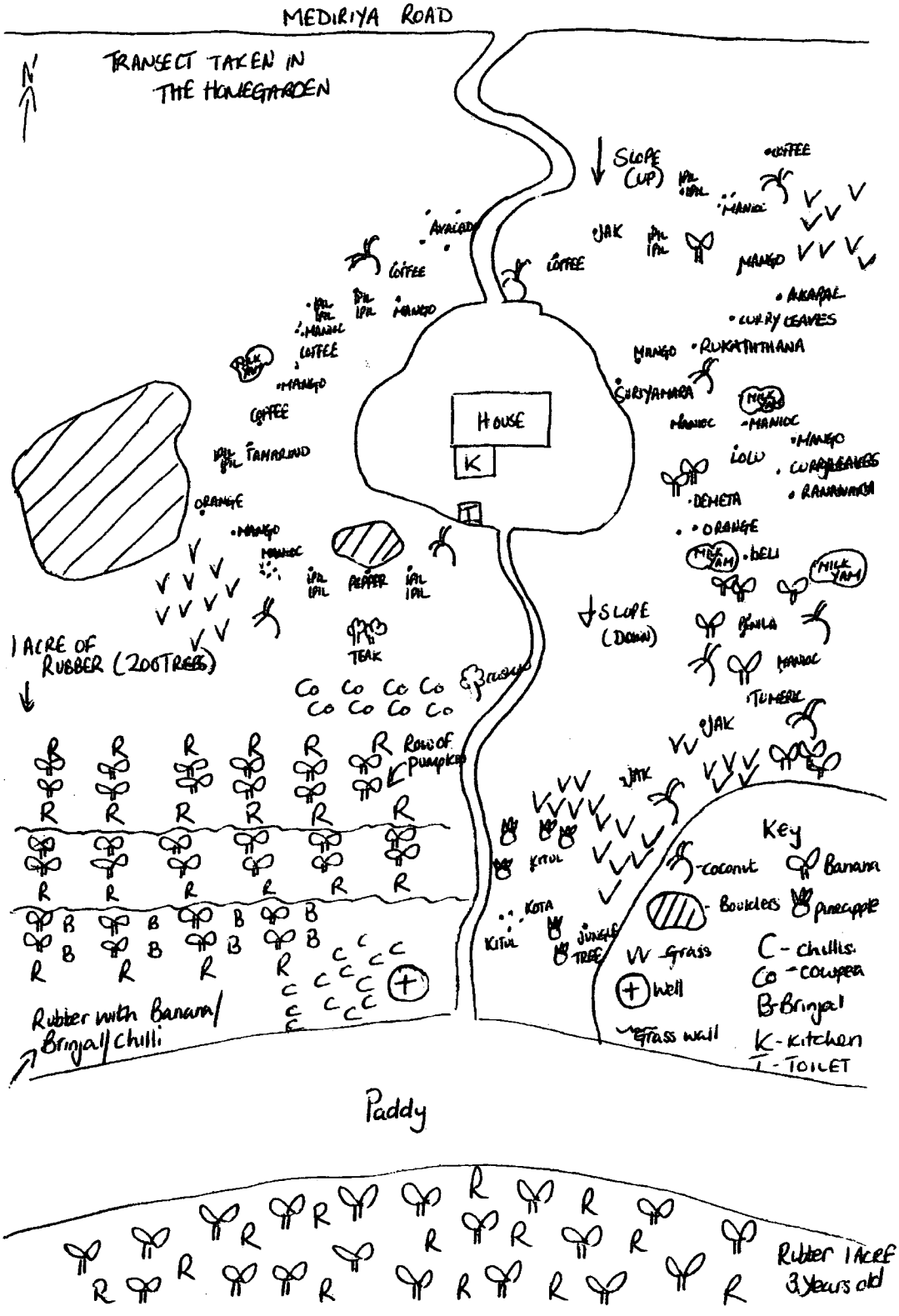
Case Study 2

Household 13

Ariawathi, a widow, has five acres of land in Mediriya (see Diagram 7). Two of her children (youngest son and daughter) still live with her and they primarily take charge of cultivating decisions. They have half an acre of paddy and an impressive home garden with many fruit and medicinal plants, which has been developed over the past forty years. Two acres (each acre in a separate location) have also been planted with rubber. Banana was chosen as the major intercrop. An acre of rubber was planted in 1999 near to the house. Two rows of banana were planted in between the single rows of rubber. The decision to plant two rows was made by Ariawathi's youngest son, Nimal although few rubber farmers in the region will plant more than one row of banana. At the bottom of the sloping rubber land there is a well. Chillies and cucumber were located near the well so that they could be watered easily at a young stage. Brinjol was also planted at the bottom because of the nature of the soil. Sriani, Ariawathi's youngest daughter, believed that brinjol grew better in sandy soil, which could be found near the paddy land and the well. At the top of the slope (near the house) the soil is gravely. Here she planted cowpea, adding that cowpea was a creeper and could strangle rubber shoots so they had been planted near the boundary where there were fewer rubber plants because of shade from a large cashew tree.

Diagram 7

Household 13: Home Garden and Smallholding



Wiersum, 1997). Hochegger reveals that:

> "The indigenous Kandyan Forest Gardens, *gewatte*, are an age-old tradition of sustainable land use. Studying these agro-ecosystems we can learn how productivity and diversity have been maintained in an environment easily susceptible to human destruction. Steep slopes, heavy rainfall and the merciless light of the sun can lead to soil erosion and environmental deterioration. In spite of these difficulties farmers have created a liveable and aesthetic surrounding sustaining many of their daily needs" (1998:4).

The home garden and smallholding are often complex systems that require considerable knowledge and willingness to experiment in order to manage the wide range of plants. As Gujral points out:

> Traditionally, agroforestry has been practised in Asia for generations. Farmers in Asia have been growing cereals, root crops, fibers, vegetables and fruits and rearing animals in association with trees and other woody perennials with the objective of meeting their daily needs of animal fodder, fuel wood, timber and fruits and other products (1988:1).

The sheer quantity and variation in knowledge regarding crop location, plant properties and supernatural beliefs (influenced by age, gender and family history)[19] is a major factor in the heterogeneity of household decision making. The diversity of species (see Chapter 2) in a home garden varies considerably between the oldest villages of Mediriya and Therrapahuwa, and the youngest, Walamatiara but most include a collection of timber, fruit, vegetable, spices and medicinal plants. Discussing the location of plants, a subject that particularly interested the team's scientists as an aspect of decision-making, was often problematic. When asked why they had planted certain species in specific locations the villagers would often answer '*nikan*' (just because) or give an explanation that generally related to their particular home garden. Indeed Hitinayake, who carried out research on the Kandyan forest garden, claims that:

[19] For example, where they have originally come from in Sri Lanka has some bearing on the range and 'type' of knowledge passed down.

"Home gardens cannot be classified effectively on the basis of species assemblage due to their extreme species diversity and structural complexity" (1996:95).

In this remote location, which, not so long ago was primarily jungle, knowledge is rarely limited to 'domesticated' plants and most households have an understanding of the uses and properties of many wild ones, which have been left to grow because they may be useful. For example, even though most houses have a tiled roof,[20] dried *illuk* grass is still frequently used for the kitchen as it can last up to four years and will keep a room cool. *Illuk* is now scarce in the villages because of sedentary farming and the arrival of guinea grass, a domineering weed. However in August, at the peak of the dry season, women will search for, collect and dry the grass ready for re-roofing. Knowledge of the medicinal qualities of wild herbs is prevalent such as *kirila*, the leaves of which can be dried and used as a worm treatment (although such remedies may be discarded in favour of 'Western' medicine). Villagers become familiar with plants through the methods mentioned above but learning can also be encouraged through story telling. One particularly interesting example related to me by a village elder (and said to be a true story) involves the *rukaththana* tree, which can be found in some home gardens.[21] The timber is used to make coffins.

> *A woman in a village had been bitten by a snake. There were no Western doctors at the time. Only ayurvedic practitioners were in use. Sadly, they couldn't do anything for her and she was declared dead.*

[20] This was largely due to a Government development project that distributed tiles to the needy although corruption in the distribution was prevalent.

[21] For example, there was a *rukaththana* tree in the homegarden of Household 13. The son is a 'breaks and sprains' healer, learning his craft from his father who had been well known in the region for being a healer of many ailments.

She was buried in a coffin made from rukaththana wood in all her finery including gold bracelets and necklaces. That same night, a village thief, who wanted to steal the gold jewellery, dug up the coffin. As he lifted open the coffin lid the lady scrambled to get out. Not sure what had happened but knowing the thief she asked him to take her home. He was so frightened he ran off so she had to run home by herself. It was night and the house with her husband, son and daughter inside was locked so she banged on the door telling them who she was. They refused to open the door thinking it was a ghost. She was tired and weak and so she lay down outside. She slept all night but the family didn't sleep. The lady was ill and weak and she groaned in her sleep. The family, frightened, stayed awake till morning thinking there was a ghost outside. In the morning when she was still there they realised she was real and rejoiced that she was still alive. However they had to tell the village headman who reported it to the police and they brought the matter to the attention of the British district commissioner. There was an inquiry held and it was eventually discovered that the rukaththana tree has medicinal properties, which sucks out poisons. The lady had been in a coma when she was declared dead and she came out of it with the medicinal help of the coffin just at the time the thief dug her up.[22]

Senanayake's home garden (see Case Study 3 and Diagram 8) is a good example of how complex arrangements of plants may be the result of a detailed understanding of the local environment (soils, qualities of plants etc.). However knowledge can come from many sources.

Intercropping with Rubber

A detailed understanding of soil conditions as well as knowledge of local domesticated and wild species have been integrated, by smallholders, into the growing of rubber and utilisation of space in between the plants. Many factors influence decisions behind mixed cropping, choice of intercrop, spacing, location and selection of inputs. One consideration, as Richards points out, is that "competition between crops in an intercropping system tends to exclude or minimise weed problems" (1985:70). Whether a farmer chooses to intercrop with banana or *brinjal* during the immature stages of rubber growth may also

[22] The medicinal qualities of *rukaththana* can be used for earache, toothache, diarrhoea, boils, external ulcers, sores and fevers (Ashton *et al.*, 1997:403-409).

depend on the market value of the intercrop or the need for land to grow traditional cash crops and food for home use. When the rubber is mature, the farmer's decision to allow the rubber to stand-alone or to intercrop with cocoa[23] may depend on the availability of subsidies or labour. If the farmer should choose to intercrop with banana the decision behind the number of rows planted between rubber may be influenced by experience, knowledge flows between kin and friends, advice from the agricultural department or availability of plants, water and cash.

Banana

Banana is available in most home gardens and smallholdings in the three villages. The most common banana varieties (Sinhala names are given) are listed in Table 11:

Kolikuttu	The most popular variety as it is a good quality plant. It will produce a smaller bunch than the other species but fingers are fat and they are said to be tastier. Prices are good and farmers can get at least 1-3 rupees per finger.
Ambul	The second most popular variety, it is known as the sour banana.
Alukasel	Used in curries.
Anamalu	Not a good quality banana.
Emboon	Large finger.
Sini	This species is known as the sugar banana. It produces the biggest bunches but is the least popular as quality along with prices is said to be low.
Suvandal	A sweet smelling variety.
Rat kesel	Red banana not normally grown in this region.
Mandan	Used in curries. Not normally grown in this region.
Ranil	One farmer had brought this variety of banana back, from Passara, a region further north that is of higher elevation and has a cooler climate.

Table 11: Banana varieties

[23] Cocoa is the recommended intercrop (by the Rubber Development Department) to be planted when rubber is mature at 6 years old. Farmers can get a subsidy to grow rubber from the Export Department.

Case Study 3

Household 35

Mr Senanayake, one of the first settlers in Walamatiara, has a complex home garden (see Diagram 8), now suffering from overcrowding where the lime trees are dying because of shading from larger trees and mango is not bearing because of its proximity to teak. Mr Senanayake explained how his home garden developed:

We do it without planning. A house or hut is built and when we go out we get something, bring it and plant. At the time we think there is a space but when it grows up we find it is too thick.

However he could give reasons for a number of choices made with regard to plant location. The jak trees that separate Mr Senanayake's land from the road are over thirty years old and he planted them because there were no jak fruit at the time and a lot of *illuk*. Shade was needed and a means to control the long grass. Large trees are planted around the house to act as windbreak although some species, such as jak, are weak and the wind can uproot them. Senanayake believed that fruit bearing plants should remain close to the house so that they can hear voices, which encourages them to grow. They are also readily available, easily maintained and can be protected from wild animals. The ginger plant in his garden was donated by one of his daughters. It needs a cool place to live so he planted it by a stone wall. Cool, stony[1] places are best for turmeric, ginger and fruits like pineapple and mango. Medicinal plants such as *hiresa* and *tolabo* are also found in Senanayake's garden. They are used in charming ceremonies and he planted them so that they would be readily available for such occasions. They are close to the house for safety.

[1] In the shady home garden stony soil seemed to be considered cooling in direct contrast to stony ground in smallholdings.

Diagram 8

Household 35: Home Garden

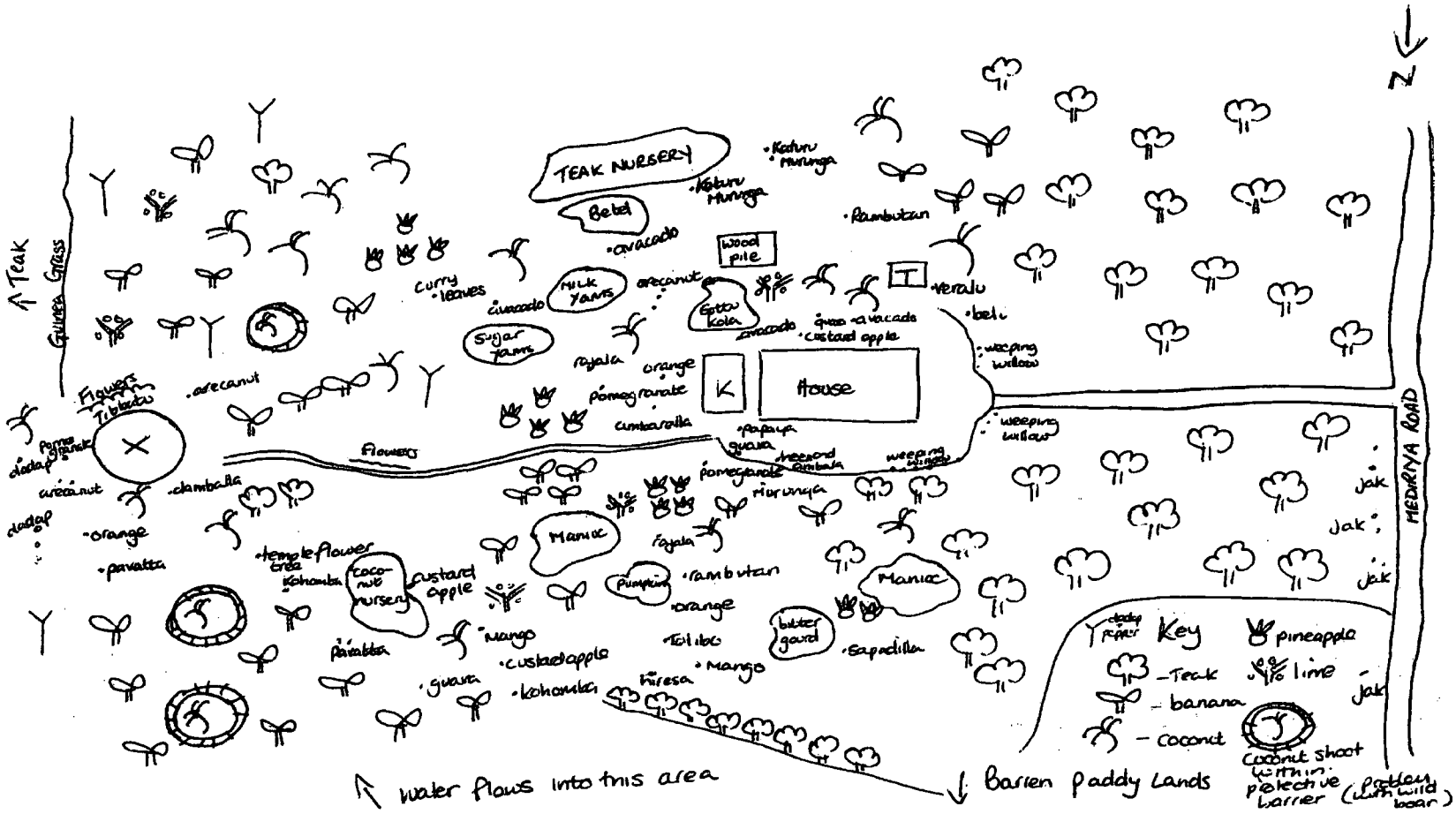


Plate 30

Plate 30: Over time soil is allowed to run into the pit

Maintenance of banana plants involves keeping each down to the mother plant and two suckers. This was often described as mother and two children. Once the mother plant bears fruit and it is harvested, she must be removed, and one of the shoots replaces her. This continues for the lifespan of the root- stock, which is around three to five years depending on location. As Uckkusingho (Household 25) explained, if the stock is allowed to sustain more than three plants it will become weak, more susceptible to disease and produce bunches with fewer and smaller fingers. Both the fruit and the flower (see Plate 22) are edible. The flower can be used in curries and is removed from the bunch approximately three months before harvesting.

Spacing of banana varies considerably depending on whether monocropped or mixed with other plants. If banana is the main cultivation, the distance between plants can be between 8 to12ft. Wijenayake (Household 37) believed that the larger distance would encourage growth, as there would be more nutrients for each plant. Smaller seasonal plants such as *kiriala* (milk yam), chilli, cowpea, millet, *brinjal*, tomato and sweet potato can be intercropped with banana. The banana leaves do not completely shade the ground and thus it is often chosen to protect immature perennial crops such as coconut, orange and rubber. A number of farmers favour banana because they believe the plant stores water and can aid moisture retention in the soil (*seethala* or cold and wet). Pits of 2ft square are advised for banana plants. The bottom of each pit is filled with 'seasoned' topsoil and the plant is covered up to a depth of 1ft. One half of the pit remains unfilled to be filled over time with soil run-off (see Plate 30). However a few households were experimenting with pit size after one farmer in

Walamatiara visited another village in search of banana plants. Somalatha says:

Ambul [banana species] is more fit to this environment. I think it is because there is less rain and the climate is very dry, but there is another dry village called Andampauwa. There they have planted Kolikuttu [banana species] and they gather very healthy bunches. They had been told to plant the banana in holes which are two feet deep and two feet wide by the agricultural department but they have planted them in very small holes. So I think since the soil on the surface has more nutrition, more plants would have grown well. So we can't say that there is an effect on our cultivation in these areas, but still we think that there is an effect of the climate on our banana cultivation.

Opinions varied on what age the plants should be at planting but it ranged between three and eight months. Dharamapala (Household 14) explained that if the plants are too young no shoot will come out but if they are too old too many shoots will come out. As I mentioned earlier, inputs such as fertiliser were rarely used on banana mainly because the costs could not be recuperated. However Dharamasiri, the 'model' farmer, encouraged by the Agricultural Department, covers the banana bunches with blue perforated bags issued by the extension officer (see Plate 31). These are intended to protect the fingers from direct sunlight, which often produces black spots. By using these bags the fingers grow fatter and spot free and are therefore more marketable.

The current recommendation for distancing between rubber plants is 8 x 27ft which will allow ample space for intercrops. However, none of my sample households felt that there was enough space to plant three rows of banana in between single rows of rubber although most felt that you could probably 'squeeze' in two rows of banana. In addition farmers felt that fertiliser would be

required to prevent excessive nutrient loss affecting the rubber (which has its own fertiliser). The low market value of banana was not worth the expense.[24]

Nevertheless there is a high degree of experimentation in the agricultural practices of villagers in Mediriya, Therrapahuwa and Walamatiara. With little prior experience of farming, I often did not realise that what I had learnt from the farmers was in fact part of a process of trial and error. This became clear at times, particularly when project scientists visited. For example, Household 13, who had planted two rows of banana in between single rows of rubber also, utilised space by planting short-term crops such as *brinjal*, chillies, cucumber, millet and pumpkin.[25] Most households, possibly because of previous experience in *chena* cultivation, intercropped in this manner and so I had not realised the exceptional character of their activities until project scientists commented on such utilisation. As my fieldwork progressed I became aware of unusual variations in agricultural practices and problems associated with combinations of plants. One household had released a species of fish into their agricultural well to see if they could raise an extra source of food and income. Another villager brought back a tea plant from his native village further north in Passara. Much discussion ensued as to how they could recreate the cooler

[24] Rs150 for a bunch of *ambul* (with between 150-175 fingers) was considered to be a good price. *Sini* rarely fetched more than 25c a finger (around 200 fingers to a bunch) while *kolikutu* bananas were usually worth around Rs1.50 a finger (50-75 fingers to a bunch). Prices would drop dramatically when there was a glut in the market.

[25] As Innis explains "Plants of different heights will make more use of light when intercropped than when monocropped" (1997:12).

Plate 31

Fig. 31: A perforated blue bag is placed over a banana bunch to reduce the chance of black spots on the skin, caused by direct sunlight.

conditions that tea favours. Another example concerns Sudu Kumari who had mixed lime plants with coconut in the hope that both would be able to mature together but perhaps due to soil conditions, extensive shade or availability of water, the lime had flourished whilst the coconut palms struggled for survival.

Decisions over what to intercrop with mature rubber are among the most visible sources of experimentation. The rubber development office tries to encourage farmers to cultivate cocoa but squirrels commonly attack the plant. Although this pest may only actually eat the flesh around the cocoa seed, villagers are inclined to discount those that have dropped on the floor. Rubber growers have looked to other shade tolerant plants such as pepper and coffee despite being heavily discouraged by the extension officers. Haverkort notes that while:

> "Experimenting is part of farming as much as tilling the soil...in many cases, the agencies established to support agricultural technology development appear to have tried to expropriate this activity from the agricultural community and reduce the farmers to simple adopters of technology by others" (1991:3).

However the rubber extension officer of the region would encourage farmers to choose intercrops other than *brinjal* or banana for immature rubber and cocoa for mature rubber if he could be sure that it would work. On several occasions he mentioned that a rubber farmer in another part of Moneragala had intercropped with sugarcane, which had been very successful. Nevertheless Gunasinghe, who has decided to intercrop with rubber and pepper, explains:

I was planning to plant some pepper, but the advisors do not approve that and they were not ready to give any financial assistance for small crops. Last year only two people were given assistance. We were told that foreign assistance could be obtained if small crops such as black gram and banana were cultivated. Subsidies were given only for cocoa growing in rubber plantations.

Nevertheless this idea has caught on in the villages and a number of farmers expressed some interest in growing pepper with rubber although their decision was also probably influenced by the fact that the price of pepper is currently high.

The project's aims of achieving optimum planting density between rows of rubber with the most appropriate intercrop[26] is a useful, low input and adaptable technology precisely because the farmers are presumed already to have extensive knowledge of native plants. The idea of intercropping is not new to local farmers but few would agree that a systematic planting of three rows of banana between two rows of rubber would work because they believe that there would not be enough space. The reasons behind this thinking are difficult to pinpoint particularly as traditional methods often involve densely packed planting albeit of crops growing at different rates. As Innis points out:

> It is widely accepted that small farmers intercrop as a form of insurance against total loss of their crop. It is not widely accepted that small, traditional farmers intercrop because it is a better method of farming, which gives higher yield and is better adapted to a potential range of many actual climate conditions than monocropping (1997:10).

So why are farmers not planting three rows of banana, should that specific intercrop be their choice, and why is the project so interested in finding out what farmers know, in relation to scientists, before the 'technology' is disseminated? These questions lead to a number of interesting issues.

[26] Although banana was thought to be the best intercrop for immature rubber, the project scientists recognised that farmers in different regions might prefer to intercrop with something else. In Therrapahuwa region the favoured intercrop was *brinjal*.

Indigenous Knowledge in Development: Some Issues

Development has embraced the idea that local farmers are more likely to know and understand their natural environment than 'outside' experts. However we have yet to resolve what constitutes indigenous knowledge. From a personal point of view I found this particularly problematic. In my endeavours to find 'knowledge' (on soils, intercropping, experimentation etc.) that the scientists would be interested in I also began to recognise that in trying to be accepted by the team, my own actions were becoming increasingly ethnocentric.[27] Purcell is particularly revealing when he states:

> One of the universals of culture, it seems, is that each group regards its own knowledge system as *the* 'truth'. For the Western powers, this inherent ethnocentrism assumes warrant and hegemony through the seductive power of the technology based on their scientific 'superiority'.[28] This has posed a problem for anthropologists, who are enculturated and trained in that scientific perspective and thus share those assumptions (1998:267).

Bearing in mind that anthropology had been included in this natural resources project to find and document indigenous knowledge I felt under pressure to 'produce' something tangible from my time in the villages, particularly at the regular meetings held at the Rubber Research Institute. In an attempt to understand farmer decision-making I was desperate to learn about the plants found in this area and cultivation practices. This no doubt resulted in what Hamrin insightfully terms "groping about for indigenous knowledge" (www.asa2000.anthropology).

---

[27] Turner adds that: "The anthropologist cannot be present in a social field without participating and becoming a significant author of events, practices and political configurations, thereby affecting what happens and the significance it has for the constructions that emerge for participants (2000:53).

[28] It is also what makes 'development' tenable and 'justifies' our interference in others' lives. Indeed, one could ask, if we do not have something technically powerful to offer in solving local problems what are we doing meddling in their lives? (Sillitoe, pers.comm.).

In seeking to construct 'useful' reports on the set topic of "indigenous technical knowledge and how it informs decision making", I found myself attempting to define what should and should not be 'indigenous' knowledge so that 'relevant' material could be taken from my detailed research notes. However, while indigenous knowledge has always existed, disseminated from one generation to the next, it has also been influenced by outside knowledge. Whilst I am not stating that such 'pure' knowledge does not exist, I have already demonstrated that agricultural practices in the villages of Mediriya, Therraphuwa and Walamatiara, although largely 'localised' are influenced by and spread through many mediums. However if this 'knowledge' is at variance with the 'ideal' it is no less significant or less relevant for it informs decision-making. As Sillitoe explains:

> A sympathetic consideration of these idioms... is central to achieving an understanding of how they are managing their natural resources, and their implications for agro-ecological science, with regard to intercropping patterns [and] soil fertility (1998b:228).

Another important concern, closely linked to the role of anthropology in development, is with the rubber intercropping project's aim to use data collected to fill in the 'gaps' in 'scientific' knowledge thereby creating a 'complete' picture. This will legitimise the dissemination of the intercropping technology, complete with organic fertiliser recommendations, hopefully leading to the alleviation of poverty (assuming that poverty is related to agriculture). However, there are implications for development projects that seek to compare indigenous knowledge with Western scientific models, not least of which is the danger of misinterpretation and "promoting inappropriate interventions based on misunderstanding" (Sillitoe,1998a:192). As Antweiler points out: "There are

many unsettled issues surrounding the acquisition, storage, retrieval, and dissemination of, e.g., traditional forest-related knowledge in its broader sense of local knowledge" (1998:478). Such issues may involve intellectual property rights and the fact that local knowledge is dynamic and, once documented, may be represented as static or unchanging. Sillitoe also asks that we take heed of the problems that a narrow view of 'indigenous technical knowledge' (knowledge separated from its socio-cultural context) can present. He states:

> "The 'indigenous technical knowledge' formulation, implying universality, overlooks unique features of particular local knowledge traditions. It defines as irrelevant some issues that might crucially inform others' environmental understandings, notably the non-empirical such as ritual, social and symbolic formulations" (2000:13).

In other words, while the 'knowledge' that I have presented in this chapter in relation to soils and intercropping is undeniably interesting (and useful), it cannot 'stand alone'. Consideration must be given to wider issues.

Nevertheless, it is important to recognise that indigenous knowledge is valid, relevant and necessary for sustainable, participatory development to occur. Wickham (1993) believes that, "local knowledge is likely to be the most complete and sometimes only up to date source of information on local conditions, practices, beliefs and attitudes" (p.34). He advises researchers and planners to take on board this understanding. Anacleti (1993) reminds us of development's aim to empower local people and that part of this endeavour is to appreciate that rural people can define their needs for themselves. Indeed, development will not solve the problems of poverty without collaboration. Murphy (1990) believes that the relationship between developers and the local population will improve once indigenous knowledge and local needs are taken

into consideration. Anthropology can play an important role in this regard for as Chaiken and Flueret point out:

> "Traditionally anthropological research included collection of local peoples' perspective on social and political issues, and this practice is logically contrived in contemporary applied and development anthropology, with the incorporation of indigenous knowledge into development programs" (1990:14).

4

Sustainable Development

The resources exist to end poverty, achieve meaningful social and economic development for the world's majority, protect the environment and at the same time maintain the amenities and advantages which modern technology has brought. Sufficient progress has been made to show that it can be done. It has to be done to protect ourselves and those who have no voices- future generations of human beings, and species apart from our own (UN Population Fund- The State of World Population, 1992).

The ideology and practices of 'outsiders' has largely governed development in Sri Lanka, from the welfare policies of the British Colonial administration to a succession of 'poverty alleviating' programmes instigated under the influence of international donor agencies. Within Sri Lanka, there has been little migration of the poor from rural to urban areas, as observed in many other developing countries and the concerted effort of consecutive governments in meeting basic human needs[1] has been noted worldwide (Moore, 1992a). Indeed Sri Lanka appears to share the global concern for human and ecological development to be sustainable.[2] However, despite a history of 'pro-poor' programmes, questions must be raised as to whether the poor really do have access to the range of development benefits and opportunities on offer.

Mullen (1995) claims that on a global scale, the gap between 'rich' and 'poor' has doubled over the past 30 years. He believes that poverty levels are:

[1] Despite some spatial disparity (see UNDP Sri Lanka, 1998).
[2] In rural areas of Sri Lanka, the 'environmentally unsustainable' results of human and ecological poverty are considered to be one of the main causes of deforestation, land degradations and over-exploitation of other natural resources (www.un.org/esa).

> "Organically linked to a series of phenomena which reinforce and exacerbate deprivation. Prominent among these are: ethnic strife and genocidal movements; gender bias, high population growth rates; religious extremism; communicable diseases such as cholera and AIDS, and vulnerability to climatic extremes including drought or floods" (ibid:1-2).

Griffin (1999) highlights the role of liberal economic policies[3] in accelerating the process of globalisation, which, in turn, has had a profound effect on the way donor agencies and policy makers now think about sustainable development. He states:

> "This process of globalisation has altered the context in which national development strategies are formulated and raises issues about the distribution of gains and losses associated with closer economic integration... The gravity of the problem of world poverty... has galvanised the international community into action... Poverty has emerged as the critical issue on the agenda of international development" (p.2).

In this chapter, I will examine the pervading influence of international development practice on the agrarian and welfare policies of Sri Lanka in order to place current concerns with poverty alleviation in context. In so doing, I hope to emphasise the widespread rhetorical nature of development discourse in Sri Lanka[4] and the impact this may have on sustainable development.

It will be useful to review the history of development in Sri Lanka in order to place the rubber-intercropping project and my own research at the grass-roots level within a wider political framework. However, I found little evidence of direct state intervention in Moneragala until the latter part of the twentieth century. Indeed, Wanigasundara notes how:

---

[3] Griffin (1999) also points to the rise of an open economy policy in developing countries and the integration of ex-socialist countries into the world economy as key factors in speeding up globalisation.

[4] Although this is a worldwide problem. Mullen believes that "the dramatic increase in magnitude of rural poverty worldwide during the 1980s is an indictment of governments and international development institutions in terms of counter-productive policies, poorly executed development programmes and lack of transparent integrity and public accountability" (1995:1).

> "Moneragala district's poor are helpless and seem to be been forgotten since independence. They have been left to fend for themselves. A common remark made by farmers is that the elephants of Handapangala receive more attention than they" (1995:5).

It should be noted that the rubber intercropping project, by its very nature, sets limits to accessibility by requiring the farmer to have land for which she or he must have a permit, thus excluding the landless or encroachers.[5] However, the project managers did ask me to assess the level of poverty in the villages in order to gauge the extent to which income from intercropping with rubber could increase a household's well-being. Such a request, though, also promoted a closer examination of what 'poverty' and 'sustainability' means to various people and this, in turn, highlighted possible constraints to the dissemination and adoption of development projects in Moneragala. This Chapter focuses on the key issues of sustainable development for the alleviation of poverty and how strategies for achieving this goal are constantly changing.

What is development?

Burkey claims that the "field of development is a veritable jungle, inhabited by theories, counter theories, approaches, paradigms and programmes of all sizes, shapes and colours" (1993:27). Gabriel believes that the concept of development, "cannot be easily defined or measured since it involves a powerful political and culturally specific term". Instead he suggests that, "it may be useful to seek to understand the rational meaning of the social situations for the actors or participants involved in them" (1991:13). Development, as we would perhaps recognise it today, has been an on-going process since the

[5] Although, as I have already pointed out in Chapter 2, some form of income can be gained by intercropping banana with rubber belonging to other people.

advent of colonialism. Mair extends further back into history linking 'ideas' of development to the beginning of Western expansion (1984). She associates these ideas with a notion of 'duty', which surfaced initially within religion and expanded to include paternalistic tendencies of wealthier nations over poorer ones, eventually coalescing into colonial policy and in this post-colonial era to widespread feelings of 'responsibility' (1984:2-3). Gabriel adds:

> "What has been altered over time has been the issue of to whom the duty was owed. From Christian tradition initially duty was owed to God, based upon the protestant and biblical notion that man's task on earth was to make the World more productive, acting as a steward for the deity...duty was owed also to members of other wealthy nations...linked to this thinking was the duty perceived by wealthier nations towards poor ones to act as their trustees...this notion merged into British colonial policy, at first with self supporting colonies and later with provision of resources for development and welfare" (1991: 8-9).

In Sri Lanka the colonial British had the largest influence on the economy. They introduced production of plantation crops like coffee, tea and rubber for export. In addition:

> "Physical infrastructure facilities such as domestic networks of road and rail transport...and other transport and communication facilities required to facilitate the export of domestic produce to foreign markets were built up" (Lakshman,1997:2).

Some educational facilities and rudimentary health services were also established in order to train the necessary manpower for the colonial administration, encourage the growth of new economic activities in remote parts of the island and consolidate control (Lakshman,1997).[6] The development of a

[6] However, Alailima also states that, "legislation specifying education and health standards and providing social security was first introduced for the Indian immigrants in the organised agricultural estate sector in order to compensate them for the change in social and economic conditions they experienced" (1997:129).

plantation economy was to radically change the existing social and economic structure of Sri Lanka. As Bandarage points out:

> "The self-proclaimed justification for colonial rule was the extension of leadership and democracy to colonized people...once colonial political authority was consolidated and plantation development was underway, colonial ideology shifted from its earlier stress on the conservation of the pre-colonial order to an emphasis on changing and civilising the natives. This shift in colonial ideology must be seen in relation to the shift from the earlier mercantilist phase to the period of plantation development in the island. During the earlier period, radical transformations of the native social structures were not required since mercantile profits were based on extracting local produce...However, when installing the colonial mode of production in the form of plantations, a radical transformation in property relations and labour mobilization came to be required" (1983:302-303).

The British administration introduced new modes of economic behaviour, encouraged an influx of immigrant workers (largely Indian) and appropriated huge tracts of land, in the name of the crown, to establish plantations (Alailima, 1997:128).[7]

Alongside the estates, Sri Lankan subjects continued with *chena* (slash and burn)[8] and paddy cultivation. The British recognised and labelled the peasant sector, even establishing the Department of Agriculture in 1912 with the principal aim of introducing the peasant farmer to 'scientific' agricultural practices (although it should be noted that the intention was to establish a 'rural gentry' who would help ordinary peasants to 'progress'). Colonial interest in peasant agriculture and irrigation increased with a massive food production drive during World War One. This interest extended to allowing peasants to

[7] Over the decades both the colonial administration and Sri Lankan governments became increasingly more lenient on encroachers, recognising that the land would be utilised and cultivated.
[8] De Silva highlights how the British tried to restrain *chena* cultivation because they, "viewed slash-and-burn cultivation as a primitive, economically wasteful, destructive (of valuable timber resources) and demoralising form of agriculture which produced the seemingly less nutritious dry grains rather than paddy" (1981:306-307).

settle on crown land and the building or repair of irrigation systems, particularly in the Dry Zone (De Silva, 1981:405).[9] Food scarcities and post war inflation forced colonial and Sri Lankan politicians to concentrate on developing the islands' resources in a push for agricultural self-sufficiency, a strategy which also generated paternalistic attitudes towards the peasantry. Kemper explains:

> "As time passed, the colonial government began to go beyond simply restoring irrigation systems and making land available to settlers. Instead of conceiving of farmers as simply producers of food, or part of a population problem, or the majority of Sri Lanka's people, they began to conceive of 'peasants' as a social institution that needed to be protected" (1991:140).

Following the Depression of 1930-33 and malaria epidemic of 1934, problems of mass unemployment and poverty were recognised as serious problems, which would necessitate the intervention of the State. Increased welfare measures were supplemented, during the 1920s and 1930s, with agricultural solutions and separate, state organised research stations were created such as the Tea, Coconut and Rubber Research Institutes. Moore points out how this set a precedent for agencies and farmers to see their interests in crop-specific rather than broader occupational terms, encouraging a fragmentary situation which continues today (1985:162).

When the colonial era ended, richer nations transferred their role from one of 'trustee' to 'developer',[10] aiding the poorer countries on the road to economic growth. This process was called "planned development" (Gabriel, 1991).[11] Escobar highlights the emergence of planning techniques during the Second

[9] Although, this did not happen in Moneragala.
[10] As Sillitoe has already highlighted this can be linked to various "conspiracy theories that suggest 'development' is all a multi-national capitalist scheme to enslave the world, saddling many Third World Countries today with international debts crippling economic growth" (2000:3).
[11] Gabriel also asserts that: "The recent history of planned development has been about the national pursuit of economic growth by economic expansion" (1991:8).

World War such as operations research, systems analysis and human engineering, which provided the groundwork for the rise of Third World development in the 1940s (1995:67). Indeed Apfel-Marglin explains how, "Science and progress replaced the discredited colonial legitimisation of the 'civilising mission' which had the marked disadvantage of racism and ethnocentrism" (1996:24).

With planned development came a number of development 'strategies' or models, the most notable of which was the idea of 'modernisation' where societies were labelled as either 'traditional' or 'modern' and were thought to 'progress' from one to the other, typically with the transfer of technology (Gabriel, 1991; Sillitoe, 1998b). Indigenous knowledge was not only dismissed by the modernisation approach but was also thought to be part of the 'problem' of under-development (Sillitoe, 2002). As Escobar points out:

> "To plan in the Third World...certain structural and behavioural conditions had to be laid down, usually at the expense of people's existing concepts of social action and change... In the face of the imperatives of 'modern society', planning involved the overcoming or eradications of 'traditions', 'obstacles' and 'irrationalities'" (1995:67).

The modernisation of 'traditional societies' through economic development was normally aimed at an increase in industrialisation whereby the under-employed rural labour force would come to work in the 'more productive' urban-industrial sector (Corbridge,1995:2). Auty outlines one model of post-war global economic development, which he describes as the "trickle-down effects of trade". Here economic progress would be stimulated "by the developing countries' demand for raw materials and agricultural commodities" (1995:3). More importantly, in order to improve the 'material well being' of the population it was deemed

necessary to increase the rate of growth. The objectives were "to eliminate poverty, illiteracy and disease, to increase the range of human choice, to give mankind greater control over the natural environment and thereby increase freedom" (Griffin,1999:164).

However it should also be noted that over the decades, while specific 'development strategies' have been promoted internationally, "few countries have followed a distinctive strategy of development...most countries, most of the time, are confused and inconsistent" (Griffin,1999:24). By the time Sri Lanka had gained independence from Britain in 1948,[12] it had inherited a prosperous 'modern' plantation economy and a network of social and physical infrastructure (Lakshman,1997). The economic structure was predominantly based on agriculture and increased taxation of the plantation sector funded a greatly expanded welfare system including the subsidisation of the major food staples (notably rice), free medical care, free education and other social welfare amenities.[13] Thus, agricultural policies were, for a long time, based on the maintenance of plantation export crops in order to increase foreign exchange income and government revenue. Various programmes were also developed to encourage self-sufficiency in staple food crops and help improve the living conditions of peasant smallholders (Nakamura *et al.*, 1997:264).

Nevertheless, strategies intended to achieve these objectives varied between governments. From 1948 to 1956, political power rested with the right-wing

[12] Although Sri Lanka became independent in 1948, Griffin explains how, "it had...obtained powers of internal self-government under the Donoughmore constitutions in 1931 and from that date enjoyed the benefits of a universal adult franchise" (1999:182).

[13] An attempt by the UNP in 1953 to eliminate the consumer subsidy on rice was abandoned "in the wake of extensive political agitation", securing future political support for food subsidies (Lakshman, 1997:6).

United National Party (UNP), which "preferred private sector led growth with greater emphasis on market orientated policies..." (Fernando, 1997:105). The Sri Lanka Freedom Party (SLFP) led coalition held office between 1956 and 1965 and governed with left wing policies. As Fernando points out, "the SLFP-led coalitions...favoured state ownership...[and] preferred, wherever possible, administrative means as against market oriented levers to influence economic behaviour" (1998:105).

In the late 1960s and 1970s, the Marxist influenced dependency theory argued that developing countries, instead of being self sufficient, were becoming increasingly dependent on developed economies for goods and services, markets and capital (Stewart,1985:8).[14] Criticism of industrialisation and growth maximisation began to grow, such as in the core/periphery model that attributed "inequality in global income distribution to the exploitation of a backward developing country 'periphery' (which exports primary products) by a politically powerful industrial 'core'" (Auty,1995:6). Indeed, growth was not able to eradicate poverty at the speed previously anticipated and the poorest 20 to 40 per cent of the rural population were deemed worse off, especially the landless and smallholders with diversified livelihoods (Griffin,1999:166).

Many have written about the problems resulting from past 'development' activities. Burkey describes how:

[14] Lakshman highlights that 1956-1965, when the SLFP led coalition governed, "was also the time when the structuralist and dependency perspectives on 'development' and 'underdevelopment' began to wield influence on development strategies for the Third world and Sri Lanka, characterised by its traditional dependence on a few primary commodities, fitted well into the prototype of an underdeveloped country...It became even more so with the post-1956 deterioration of its external terms of trade" (1997:6).

> "The decade beginning with 1960 was declared by the UN [United Nations] as the Development Decade; the 1970's became the second Development Decade...despite all these 'decades' the high expectations for development and the eradication of poverty have not been fulfilled...the 'green revolution' was only one experience which confirmed the universal observation that what was taking place in many Countries during the development decade was growth without development but with poverty" (1993:26-28).

In 1965 High Yielding Varieties (HYV's) led to the Green Revolution (Mair,1984:9). Conway and Barbier explain that the HYV programme was the result of a preoccupation with feeding a rapidly increasing World population resulting in increased yields of staple cereals such as wheat, rice and maize (1990:11). It also helped the industrial sector by providing, for example, raw materials and increasing the demand for agricultural inputs such as fertiliser. It was thought that the goal of alleviating poverty and hunger could be achieved by increasing the production of food (with the added benefit of lowering food prices) and the provision of better opportunities for small farmers who could be as 'successful' as large land owners with higher yielding seeds that had a shorter growing season (Griffin,1999:144). However, as Richards points out there is:

> "Evidence that high yielding varieties benefit richer farmers disproportionately. This is because the varieties concerned require additional inputs (irrigation water, fertiliser, pesticides) to grow successfully. Poorer farmers cannot afford these inputs. The greatly improved output from high yielding varieties may flood the market, so depressing local foodstuffs prices" (1985:122).

Between 1965 and 1970, a UNP led coalition promoted a limited package of liberalisation in Sri Lanka, which included advocating 'Green Revolution' technology (Lakshman,1997:7).[15] The 'food production drive' (continued on from the 1940's), now incorporated the 'modernisation' of farming practices with the

[15] While the left was ideologically committed to industrialisation, the UNP fervently believed that the solution to the country's problems was a commitment to agriculture (DeSilva,1981:544).

release of new high yielding varieties of rice and other food crops and liberalisation of import licensing for agricultural equipment (Nakamura *et al.*,1997:269). Yet, even with the expansion of HYV food crops throughout Sri Lanka, land productivity has increased relatively slowly. As Farmer points out:

> "Only a small proportion of the cultivators were able to gain adequate benefit from the new high-yielding technology... The HYV's are very much more demanding. Not only do they need a high level of management in terms of weed, water and pest control, application of fertiliser, timely operations and constant attention, but they are more demanding with regard to ecological conditions, especially water, soil and light" (1977:70).

Farmers in Sri Lanka largely failed to adopt green revolution technology on a package basis so while HYV seeds spread rapidly, necessary inputs along with recommendations on their use were not adopted.

While the Green Revolution strategy had some beneficial impact,[16] particularly in focussing world attention on food and agriculture, it also further encouraged a paternalistic 'top-down' attitude, heavily influenced by international donors, that favoured "the adoption of new technology for its own sake and an unquestioning acceptance of the belief that adoption is beneficial" (Farmer,1977:70). Wickham claims that development policy "is often designed or facilitated by people whose cultural values and belief systems are significantly different from those it is intended to benefit" (1993:19). Indeed, Sillitoe believes that the 'top-down' approach to development planning, where 'experts' would decide what the problems were and devise, often inappropriate, strategies to overcome them, is partly to blame for the general failure to improve the standard of living for many rural people (2000b:3). However, in trying to

[16] Griffin believes that while the green revolution "has not led to an acceleration in the rate of growth of agricultural output as a whole...without the green revolution the rate of growth of agricultural production might have been even slower" (1999:144).

decide whether development strategies have had an impact (beneficial or detrimental) on the lives of the rural poor, it is useful to try to understand what poverty might encompass.

What is Poverty?

Many have catalogued the multiple dimensions of poverty, embracing not only access to basic needs such as food, shelter, health facilities, safe drinking water, education and electricity but also wider issues like vulnerability, entitlement and empowerment (Chambers, 1983; UNDP, 1998; Twig and Bhatt, 1998; Williams, 1999; Bebbington, 1999). Sahlins believes that: "Poverty is not a certain small amount of goods, nor is it just a relation between means and ends; above all it is a relation between people. Poverty is a social status. As such it is the invention of civilisation (1974:37). Cassen considers poverty to be largely a rural problem, stating:

> "The most common definition of poverty is the condition of people below a 'poverty income threshold' determined by their ability to affect an adequate diet and other minimal necessities. Poverty has of course non-economic dimensions, including inequalities before the law and access to public services" (1994:36).

Easter divides poverty (or causes of poverty) into three categories consisting of:

> "Transitory poverty caused, most likely, by natural or man-made disasters or through the transitional phases of structural adjustment. This category might also include those vulnerable groups who teeter on the edge of poverty, since they are the potential addition to the poor. Attributional poverty resulting from problems such as disease, mental and physical disability, malnutrition, age or position in the household. Chronic poverty caused by a general lack of access to adequate resources and opportunities by disadvantaged groups in the society" (1995:18).

Despite the abundance of proposals as to what poverty might consist of and where to find it, the problems of defining what it means to be poor, and consequently who should or should not benefit from development technology, are manifest. We also need to ask if aspects of poverty, such as vulnerability, can be even measured at all. As Twig and Bhatt point out:

> "There are no common measures or indicators of vulnerability...these difficulties arise because investigations of vulnerability are investigations into the workings of human societies, and human societies are complex- so complex and diverse that they easily break out of any attempts to confine them within neatly drawn frameworks, categories and definitions" (1998:7).

Karunanayake and Abhayaratna also appreciate that "the multi-faceted nature of poverty makes its measurement very difficult" (1999:1).

Nevertheless, since the 1980s poverty alleviation has become the major focus in domestic policy, in keeping with international demands. According to Lakshman, poverty in Sri Lanka is largely concentrated in rural areas. Interestingly he points out that despite government efforts at providing opportunities for the vulnerable in society, "these groups failed to gain easy access to those opportunities because of various institutional and structural characteristics surrounding them. One such group is the large number of people engaged in cultivating small farms..." (1997:214).

Moneragala has been recognised as one of the poorest and least developed regions of Sri Lanka. A national human development report on the seventeen districts of the island, carried out in 1998 by the UNDP,[17] ranked Moneragala second from the bottom using indicators such as insufficient access to

[17] United Nations Development Programme

electricity, safe drinking water, sanitation facilities, health and education. The report also estimates that 29% of people in Moneragala live in poverty. In 1995 Wanigasundara outlined that at least 72% of people depended on government handouts such as food stamps, 98% of the population lived in rural areas and 74% were engaged in some form of agriculture (p.3). However, overall productivity is thought to be low, mainly because of a high dependence on rain-fed farming and traditional subsistence crops, degradation of water resources and soils, inadequate credit facilities, inadequate extension service, limited access to market information and an undeveloped agricultural based industrial sector (IRDP office, Moneragala).

At the local level, when I asked villagers if they could help me understand what it meant to be poor, the answers I got were fairly ambiguous, highlighting the problematic nature of trying to define poverty. Generally, people told me "*We are poor, but not as poor as others*". In an interview with the village *Grama Sevaka*, she stated:

"Villages in Badulkumbura are more poor. They have rice once a day. Here people eat rice three times a day. I cannot say people here are not poor but they have food"

People in the village also came up with a variety of indicators, which were often difficult to relate to my previous experience with income-based poverty indexes. Villagers' markers of poverty included: limited access to paddy land, no access to land for cash crops and thus no income, elderly people without social networks, social problems linked with alcoholism or 'laziness' associated with people who, they believe, are not interested in working.

However, there did seem to be a link between social status and the indicators given. For example, villagers who owned paddy land (regardless of whether it was rain-fed rather than irrigated), or who had originally come from traditional paddy growing regions elsewhere, highlighted limited access to paddy land as a signal of poverty even though, as one villager pointed out, it would be more profitable to use the land for cash crops. While storing grain for the future provides some security, as Woost (1993) points out, paddy, as the most culturally valued form of agricultural production, is also a status symbol. Nevertheless, Moore *et al.* (1995:11) explain that:

> "It is a general rule in most of Sri Lanka that people who own paddy land are not in the poorest 50% of the population...in Moneragala [because] water is so scarce and most paddy land is rain-fed, even that rule does not seem to apply".

In addition, villagers who had a stable source of income (such as families with a member who was in paid employment – see Table 1) were more likely to link poverty with laziness, stating, for example, that since every household did not utilise their land fully, those with limited resources could gain access to land through sharecropping or some other arrangement. This view does not take into account the fact that competition for these 'spare' plots of land is high.

Another attempt I made at trying to assess levels of household 'poverty' was based on looking at material goods that people owned. I largely abandoned this approach after discovering that it could not possibly encompass the complexities of household assets. For example, one household owned a fairly substantial 30 acres of land on which they had planted teak. Many of the trees were mature and thus quite valuable. Their house was full of furniture and contained expensive brass items (family heirlooms) but they were literally

'penniless' and were often forced to pawn gold jewellery because they did not have ready access to money. The main problem was that the government had temporarily[18] withdrawn permits (a conservation measure) that allowed people to sell timber, cutting off an important source of income for this household. Could this household be considered poor? Another household had very little in the way of furniture or valuable items but the head had built up a substantial amount of savings and he had around seven acres of land, two acres of which was planted with rubber which he had just started tapping. Yet, as he has three daughters and no sons, it is likely that a lot of this money would be needed for dowries unless his daughters decided to elope. How would this household rate in terms of a poverty assessment?

A further method I used to try and assess levels of vulnerability was based on DFID's sustainable livelihoods framework (see also Chapter 5). The framework (see Diagram 9) encompasses the main factors (at all institutional levels) that affect people's livelihoods and is proposed as a tool for examining the relationship between these (www.livelihoods.org). Chambers and Conway define sustainable livelihoods in the following terms:

> "People, their capabilities and their means of living, including food, income and assets...a livelihood is environmentally sustainable when it maintains or enhances the local and global assts on which livelihoods depend...a livelihood is socially sustainable which can cope with and recover from stress and shocks and provide for future generations" (1992:iii; Pretty, 1999; Scherr, 2000).

A similar multidimensionality is evident in the idea of capabilities, composed of varying combinations of functionings. Sen (1992) maintains that traditional

[18] One villager told me that permits were introduced to prevent people from taking timber off Government-owned teak plantations. Thus you need a permit to cut and transport trees. In order to reduce felling of trees (Sri Lanka suffers from mass deforestation) the Government periodically stops issuing permits. Nobody knew when the Government would allow timber to be sold and transported again.

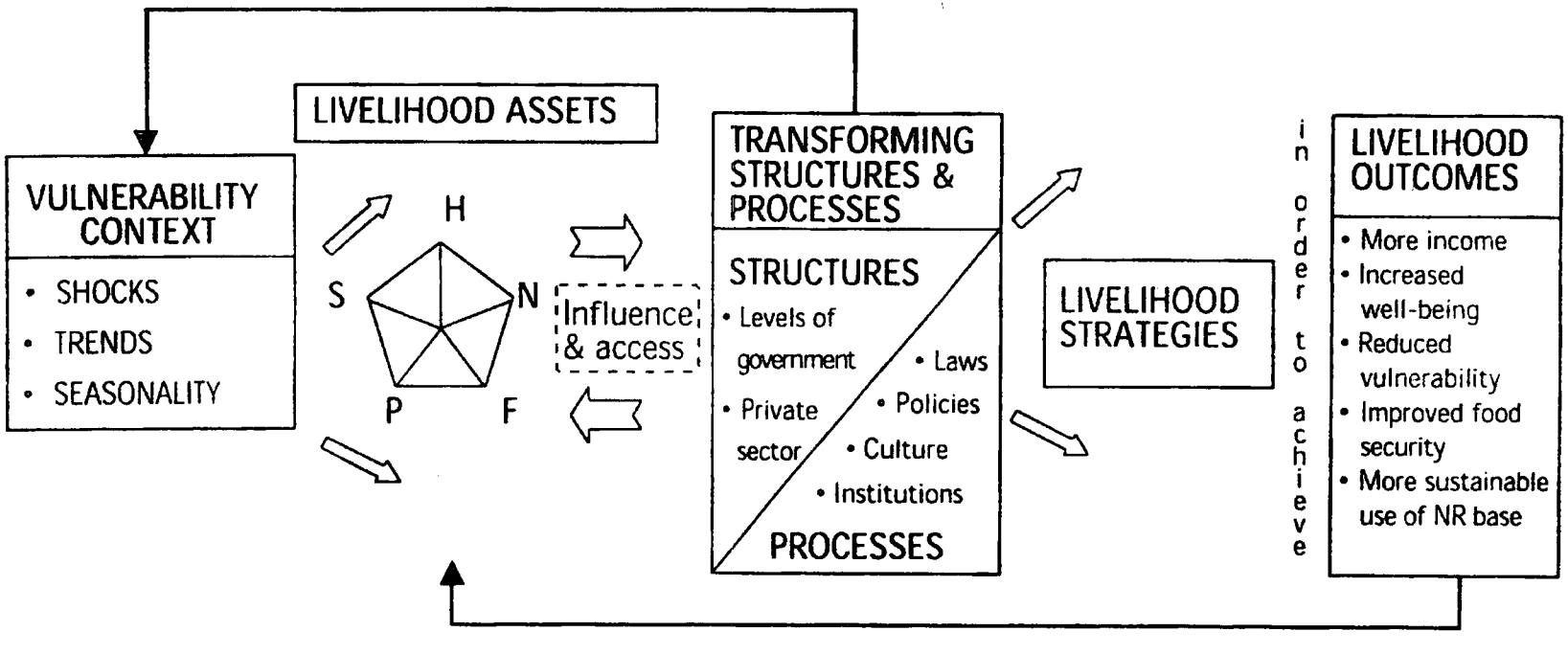
indices of poverty based on income or consumption are too narrow and that studies of hardship should examine people's functionings (such as good health and self-respect) and capabilities. Williams notes that:

> "A person's capability refers to the various combinations of these functionings that (s)he is able to achieve. This 'capability approach' to well-being is important in that it focuses on functionings - the end-states of well-being - and thus retains some measure of absolute poverty, whilst at the same time recognizing the importance of individuals' perceptions of their own position" (1999:194).

The Sustainable Livelihoods Approach highlights access to assets as key to enhancing capabilities. Pretty (1999) emphasised that assets under the five headings of natural, social, human, physical and financial capital are vital for sustainable development (see Appendix 2). In addition to identifying assets, the nature of access is critical to determining 'entitlement', defined by Williams as the "full range of resources that a person has at their disposal for the realisation of capabilities" (1999:194).

An interesting aspect of my investigations into livelihoods is that certain activities seemed to highlight a person or household's vulnerability. For example, villagers (who all farm to varying extents) perceive livelihood strategies on a hierarchical scale with agricultural labourers at the bottom, moving up to various full time or temporary occupations such as brick-making, tree felling, masonry and public or private sector vocations such as the armed forces, teaching, civil service and trading (See Plate 32). Agricultural labourers are scarce in this region and few live in the village but the fact that certain people employ this strategy may highlight their vulnerability. Non-agricultural

Diagram 9



Taken from DFID Sustainable Livelihoods Guidance Sheets (www.livelihoods.org)

Key: H = Human Capital; N = Natural Capital; F = Financial Capital; S = Social Capital; P = Physical Capital

The Arrows within the framework are used as shorthand to denote a variety of different types of relationships, all of which are highly dynamic. None of the arrows imply direct causality, though all imply a certain level of influence.

activities are also indicators of stresses and shocks (e.g. drought or illness). For example, men will mine for gems during the dry season when river levels are low and land mines will not be filled with water (see Plate 33). More men will try their luck at this dangerous activity (sometimes illegally) during severe droughts when attempts at sustaining cultivation fails, and despite knowing that it pollutes their main water source and encourages malarial mosquitoes.

We also have to consider how the various definitions of poverty can assist in designing appropriate, sustainable intervention. Certainly, a participatory approach to development, where local people help to identify key constraints to well-being, is essential. Yet, we have to take into consideration that wider, political issues will also play a part. For example, Gunasekara notes that:

> "...scholars make the mistake of assuming that peasant awareness of deprivation automatically occasions the impulse to change the systems of material inequality...[this] is not the case in Sri Lanka...Two explanations are given: 1) peasants are not aware of the system of material inequality. 2) [They] refrain from challenging the system because the costs of political participation are too high...The important point that is seldom recognised is that acceptance on the part of the peasants that the hierarchy of material inequality in their society is legitimate tends to act as a powerful disincentive to challenge the established social order" (1994:223).

Development in Sri Lanka – Post 1977

In Sri Lanka, 'true development' is believed to have started after 1977 when the country, supported by IMF and the World Bank, became subject to processes of

Plate 32

Fig.32.1: This villager makes sweeping brushes for sale.

Fig. 32.2: The clay soil in Mediriya and Walamatiara can be used for brick making.

Plate 33

Fig. 33.1: Mining for gems in the river. This villager is "swilling" the stones and gravel that has been brought up by bucket from the deep mine.

Fig.33.2: A gem-mining pit on land.

globalisation[19] through the implementation of market oriented economic reform. Earlier, the UNP's brief attempt at liberalisation had ended in 1970 when an SLFP led coalition (the United Left Front) regained power. Thus, from 1970 the new government implemented "a standard import substitution industrialisation (ISI) regime"[20] characterised by a 'protectionist' environment, which was controlled through central planning (Lakshman, 1997:7). The SLFP coalition, hastened towards a 'socialist society' by the Janatha Vimukthi Peramuna (JVP) violent insurrection of 1971, adopted a series of economic and social reforms such as "the Land Reform Law of 1972 and the nationalisation of the plantations in 1975". In addition, "state control in trade and industry was accelerated and expanded to the point where the state...established a dominance over the commanding heights of the economy" (De Silva, 1981:542). Agricultural policy also included a focus on non-paddy cultivation with the promotion of subsidiary crops, such as chillies, onions and potatoes, supported by the government through a ban on imports.

However, this 'authoritarian' system, which was generally hostile to domestic and foreign investment, had dire consequences for the economy and the government's welfare policies, "as both domestic and external factors turned sharply unfavourable" (Lakshman,1997:8).[21] Unsustainable policy led to public dissatisfaction. In 1977 the UNP regained control in a landslide victory and

[19] Griffin states: "Globalisation, as this phenomenon is called, is a consequence partly of policy changes, partly of technological changes which have reduced the cost of economic integration and partly of the disintegration of the European, Japanese and Russian empires which fragmented the world into separate spheres of influence" (1999:xxiii).
[20] Such a regime included "high tariff levels, import and exchange controls, price controls, industrial licensing, over-arching presence of state enterprises, and central planning" (Lakshman, 1997:7).
[21] The 1973/74 oil shock, contributed to the severe economic difficulties in Sri Lanka at this time, especially where the price of imported food increased but was not matched by the price of exports.

instigated policies of liberalisation.[22] As Lakshman points out, though, "Policies of liberalisation, implemented during 1977-1982, led to substantial concentration of incomes and wealth in the hands of a few and to a high degree of inequality in their distribution" (1997:9). Poverty, particularly amongst the rural poor, was exacerbated rather than alleviated.

As I have already indicated, increased taxation of plantation crops funded a substantial welfare system but as world demand for rubber and tea diminished, successive governments have faced increased problems. The benefits of Sri Lanka's welfare policies have been well documented. As Cassen points out:

> "A general subsidy is unnecessarily expensive, imposes a heavy fiscal burden, and leads to misallocation of resources. Nonetheless, it can bring benefits, as Sri Lanka showed with its rice ration. Sri Lanka's success in providing for basic needs - reflected in rising life- expectancy, a falling infant mortality rate, and a high degree of literacy, all at a low per capita income - has been well documented. One recent study shows that if Sri Lanka had waited for the normal process of growth to achieve the same social progress, the time needed would have been anywhere between 58 and 152 years" (1994: 48).

Yet, since 1977, neo-liberalist attitudes fostered by institutions such as the World Bank and IMF,[23] have led governments to review the social services as well as cutting consumer subsidies. Significantly, by participating in the economic globalisation process through its liberalising policies, Sri Lanka's governments have also encouraged inequality, in the distribution of income and wealth. Simultaneously we have seen the promotion of 'pro-poor' policies,

---

[22] As Lakshman explains: "Private enterprise, so far highly restricted by state controls, found in liberalisation a source of rejuvenation and there was a significant release of private sector energy...the state also ran a strongly expansionary fiscal policy in order to finance a massive capital development programme, supported by a large inflow of official foreign capital" (1997:8-9).

[23] These include stabilisation and structural adjustment policies (SAPs) (Lakshman, 1997:172).

despite the apparent cut in expensive welfare programmes, which was aimed at keeping the public compliant over continuing market reforms. However, strategies like the cutting of consumer subsidies fuelled growing perceptions, particularly amongst low-income youths, that the government was in fact 'pro-rich'. The backlash from these youths, who felt excluded from the new economy, led to two significant movements; the Tamil secessionist movement, the Liberation Tigers of Tamil Eelam (LTTE) and a revitalisation of the JVP amongst the Sinhalese (Dunham and Jayasuriya, 2001:31).[24] Lakshman believes that while a move towards 'relative' inequality did not necessarily mean an increase in 'absolute' poverty[25] and a decline in living conditions, it became increasingly apparent that the 'trickle down' effect of growth was limited. Thus, he states:

> "The growth process of the post 1977 'open economy' incorporated forces of its own disintegration. A political backlash was inevitable from these large segments of society who either failed to benefit or actually suffered losses. The growth process therefore failed to systematically reinforce itself and become stable and sustainable" (1997:9).

Moneragala – Post 1977

Over the past few decades, successive governments have made various attempts to 'develop' Moneragala through agriculture. This isolated region's inclusion in the self-sufficiency food drive for rice and subsidiary crops[26] was limited but after 1977, in an attempt to attract foreign and domestic investment

[24] As De Silva points out, "an undercurrent of hostility towards Tamils, indigenous and Indian, was discernible from the outset", but the new constitution of 1972, which instigated Sinhalese as the 'official' language and Buddhism as the 'official' religion was a clear act of discrimination. Civil war eventually broke out in 1983. (De Silva,1981:550).

[25] 'Absolute' poverty is generally thought to be the level at which minimum standards such as health, nutrition and shelter cannot be met.

[26] Unfortunately, by offering land in non-irrigated areas of the dry zone, to companies with a 25 year lease and liberal incentives, for the cultivation of subsidiary crops such as soya beans, vegetables and sugar cane, the government merely succeeded in allowing valuable timber to be cut down and sold for a profit (Nakamura *et al.*, 1997:285).

under the Open Economy policy, the government designated Moneragala district as an Agricultural Promotion Zone (APZ). This extends incentives to investors such as "tax holidays, duty free imports of machinery, raw materials and the right to repatriate profits abroad" (Nakamura *et al.*,1997:286). Thus Moneragala has succeeded in attracting multi-national corporations such as the Pelwatta Sugar Industries Ltd., a private sugar mill established in 1986 to process sugar cane. Set up as a joint venture between the Sri Lankan government, Commonwealth Development Corporation in the U.K (CDC) and Booker Agriculture International (BAI), the company was allocated 100,000 hectares by the government, on the condition that half the land would be cultivated as an estate and the other half to be farmed by 1500 settlers (Nakamura *et al.*, 1997:286).

Pelwatte also recruits contract farmers from outside the area (including the villages of Mediriya, Therrapahuwa and Walamatiara). Hulme and Montgomery (1995) note that in Moneragala:

> "Farmers growing paddy and sugar cane commonly enter into 'tied transactions' with traders. By this means they gain access to inputs 'in kind' but agree to repay 'in kind' and market surplus through the trader immediately at harvest time when prices are at their lowest" (p.108).

Certainly in the villages, farmers had high hopes that sugarcane would be profitable and most households cultivated this crop. However, while some did make a profit (especially those villages who were among the first to cultivate and harvest the crop), most did not and sugarcane was eventually abandoned. One villager explained how he had got a loan from the Peoples Bank to cultivate sugarcane:

Pelwatte factory wanted people to cultivate...For two to three acres, to start cultivating sugarcane, so much money was needed. Pelwatte gave a recommendation for a loan of Rs5000. It was long ago...we never repaid it. We grew 25 acres of sugarcane...the land from Nakkala was covered in sugarcane...but a hundred weight[27] was only Rs175...500 weight was considered a bumper crop! The price of jaggery was too low and the cost of crushing sugarcane at Pelwatte exceeded the value of sugar and jaggery.

Another villager told of how they had cultivated two acres of sugarcane in 1977 but the government changed and then there was no money in it. She joked that if they had made money on the sugarcane they were going to build a new house. They still live in a wattle and daub structure.

More established companies, such as the Ceylon Tobacco Company (a subsidiary of British American Tobacco) have also expanded their contract-farming scheme into the dry zone of Moneragala. In addition to private companies, Moneragala has attracted substantial funding for development programmes, particularly from the UNDP, SDA, JICA, IT group, NORAD and the Central Government.[28] One long-running programme, of particular importance in the district, is the Integrated Rural Development Project (IRDP),[29] defined by Pieris as "institutional intervention with an 'integrated' approach to rural and regional development, combining research, experimentation, training, infrastructure build-up and service provision to achieve their stated overall objectives" (1997:46). Karunanayake and Abhayaratna believe that: "increasing rural poverty, widening the gap between the rich and the poor, failure of top-down planning approaches, lack of co-ordination of development efforts by

[27] Approximately 51kg.
[28] UNDP – United Nations Development Project; SDA – Southern Development Authority; JICA – Japanese International Cooperation Agency; IT – Intermediate technology; NORAD – Norwegian Agency for Development Cooperation.
[29] IRDP first became popular in the 1970s but is now considered, in development circles, to be a rather dated approach.

different agencies and the need to integrate development projects" led to the introduction of the IRDPs in 1979, supported by foreign donor assistance (1999:8).

IRDP in Moneragala (MONDEP) began in 1984, with a $28m grant assistance from NORAD (Bond and Hulme,1999:1343). Previously, IRDPs had employed a 'blueprint approach' which was 'top-down' in nature and focussed primarily on infrastructure development.[30] However, in keeping with Sri Lanka's history of embracing outside influences, it was recognised that such an approach fostered inequality and further impoverishment. NORAD is one of the bilateral donors that promoted a 'process approach' defined by Bond and Hulme as more 'bottom up' and characterised by "experimentation, learning, adaptation, participation, flexibility, building local capacities and organic expansion" (1999:1339). An interesting aspect of the MONDEP approach was the recruitment of 'social mobilisers' to act as facilitators. Moore *et al.* describe their activities:

> "Social mobilisers have two main roles. One is to act as agents of MONDEP in a variety of ways: to help organise local people to implement project activities; to pass down information about the facilities available in the programme; and to pass up information to the staff of MONDEP and other government agencies. The other role accords more closely with the title: to organise and mobilise local groups to help themselves, both in 'welfare' activities such as organising voluntary labour to help recipients of housing loans to construct houses, and in cultivation and other income earning activities" (1995:15).[31]

[30] Karunanayake and Abhayaratna state: "The emphasis was largely on rehabilitation of minor irrigation works, improvement of sanitation facilities, provision of drinking water and construction of roads, schools, offices, stores etc. Strengthening of service delivery mechanisms such as rural credit, agricultural extension and farm inputs were also included in the IRDP agenda" (1999:9).

[31] It was noted by Moore *et al.* that the 'success' of social mobilisers was 'patchy', due mainly to a high turnover of staff (ibid).

However, even with a 'process' style approach towards integrating development, IRDP was unable to "create a dynamic rural/regional economy in regard to employment and income generation and the diversification of economic activities" (Karunanayake and Abhayaratna, 1999:11). Thus, a new programme, the Rural Economic Advancement Project (REAP), which focuses on economic growth and employment generation, is steadily replacing the welfare and infrastructure based IRDP. Alongside IRDP/REAP programmes are those run by other important stakeholders (listed in Table 12) who operate in the district.

Despite the prevalence of agencies interested in sustainable and poverty-focussed development, they face many problems, not least of which is the difficulty in reaching the poor. As Nakamura *et al.* point out:

> "Many government programmes intended to benefit the rural agricultural community [have] failed to adequately reach the poor. More particularly, there has been an increased impoverishment among those at the bottom in the rural society" (1997:289).

In 1995 Moore *et al.* highlighted that the Department of Agriculture was relatively weak (in the context of Norad funded MONDEP) and had few effective services to offer farmers (p.11). On the other hand, an official from the Department of Agriculture, Dr Senanayake, also emphasised how they struggled to offer 'sustainable' services to farmers when in competition with NGOs, some of whom were distributing low quality planting material for free. He says:

The Agricultural Department tries to distribute high quality planting material and asks for 50% contribution from farmers. Who are the farmers going to choose? What is the most sustainable? Many agencies are doing agricultural

Table 12

Stakeholder	Main Activities
Cashew Co-operation (CC) – semi-government.	Plantation and extension.
National Youth Services Council (NYSC) – semi-government.	Training.
Agricultural Insurance Board (AIB) – government.	Insurance and farmer pensions.
Department of Forests (DOF) – government	People participatory forest programmes; Legal action against deforestation; forest research.
Department of Export Agriculture Crops (DOEA) – government.	Subsidy schemes for cultivation, replanting and upgrading of export agricultural crops, spices and beverages; subsidies for fertiliser; training programmes; research.
World University Services of Canada (WUSC) – NGO.	Training programmes e.g. English, typing, agriculture, animal husbandry, and motor mechanics.
Department of Agrarian Services (DAS) – government.	Supply of agricultural inputs; purchasing agricultural products; supply of farm power; land register and legal action; organising and developing farmer groups.
Industrial Development Board (IDB) – semi-government.	Provide technical knowledge for development of industries.
Department of Animal Production and Health (DAP and H) – government.	Development of crop-livestock integration; training programmes; milk production co-operative society.
Integrated Community and Agricultural Development Agency (ICADA) – NGO.	Subsidies for wells and lavatories; food subsidies; training on soil conservation and organic fertiliser.
Co-operative Department (CD) – government.	Supply loans and inputs; purchase farm products.
Sarvodaya – NGO.	Community development activities; pre-school education.
Coconut Cultivation Board (CCB) – semi-government.	Subsidy and extension.
Agricultural Development Authority (AdevA) – semi-government	Agricultural wells programme (subsidies); co-ordination of agricultural development programmes.
Sericulture Development Authority (SDA) – semi-government.	Subsidy and extension.
Commercial banks	Three government and one private bank in the district.
Department of Irrigation (DI) – government.	Connected to paddy cultivation.

Information taken from: Atapattu, 1997:7:36.

development without technical guidelines...Local NGO's are businesses who want to keep poverty long term.

Problems with Sustainable Development

In the past two decades, much work has focused on 'sustainable development' with regards to agricultural and environmental issues, which relates directly to the rural sector worldwide. This is in response to past 'quick fix' development practices, particularly those concerned with raising agricultural productivity, which have also exacerbated problems, such as:

> "Contamination of the environment by pesticides...loss of soil and degradation of soil quality, vulnerability to shortages of non-renewable resources, such as fossil energy, and, most recently, the low farm income resulting from depressed commodity prices in the face of depressed production costs" (Lockeretz,1991:159).

Indeed, not only have the previous 'development decades' largely failed to improve the standard of living for many rural people, they have also led to environmental degradation. Gabriel argues that the rural sector in some countries can account for the employment of between 75%-90% of the working population and so "rural producers and their families are an important consideration for development policy...both in terms of size...and economic impact" (1991:8). Yet, as Purcell points out, "capitalist transformation [has] threatened local communities and ecological systems and is therefore unsustainable" (1998:265).

We may ask what would make development sustainable? Wickham proposes that to be sustainable, development should fulfil human needs, maintain ecological integrity, allow social self-determination, and achievement of equality (1993:9). In addition to encouraging or protecting sustainability, attempts have

also been made to convert development policy from "top down to bottom up, from specialised to integrated, from lecturing to dialogue, from modern technology to appropriate technology" (Burkey,1993:xviii). Griffin highlights a current development strategy, the human development approach, which "has become the intellectual framework for much advice given by the United Nations Development Programme to developing countries" (1999:xv). This approach places people at centre stage and links problems of poverty with the ability to access basic needs.

Nevertheless, despite recognition of the development issues, the concept of sustainability is still a contentious one for as Redclift points out:

> "There is considerable confusion over what is to be sustained. One of the reasons why there are so many contradictory approaches to sustainable (although not the only reason) is that different people identify the objects of sustainability differently" (2000:3).

Of particular interest to this chapter is whether it is possible to reveal who will benefit from 'sustainability'. Murrey believes, "the qualifier 'sustainable' begs many questions...Sustainable for whom? By what criteria? In the short term or long term?" (Murray, 2001:6).

Widespread poverty, in one form or another, continues to exist in Sri Lanka despite numerous measures by successive governments to implement regional development programs such as land settlements, village settlement expansion schemes and widespread integrated rural development projects (Karunanayake and Abhayaratna, 1999). Nevertheless, various governments over the decades have 'promoted' the well being of rural cultivators not only through state wide welfare policies but also by investing in agriculture including land alienation,

input subsidies, rural credit, land reform, extension services and marketing assistance (Nakamura *et al.*,1977). As Moore points out:

> "Smallholder cultivation in Sri Lanka is supported by an impressive array of state provided services: extension advice; supply of fertilisers; pesticides and other chemicals; tractor services; marketing; small-and large-scale irrigation development; subsidies for tree crops, both for replanting and new planting; agricultural research; a crop insurance scheme; provision of sprayers and other items of agricultural equipment; production and duplication of certified seed; price support schemes; credit; land colonisation; milk collection schemes; and a supply of planting material or pedigree animals" (1985:89).

Three strategies - rural credit, agricultural extension or the training and visit system (T&V), and devolution of power to regional authorities - are particularly relevant to a discussion on whether current poverty-alleviating strategies are sustainable and accessible to the poor in Sri Lanka. This is largely because these schemes highlight common problems in development, namely paternalism, corruption and partisanship.

Agricultural credit

Agricultural credit with low rates of interest has been offered to farmers in Sri Lanka through various institutions[32] since 1911 (Nakamura *et al.*,1997:272). Yet the problems of rural indebtedness and high rate of default in the recovery of loans continue today. Many studies link the excessive rate of default in agricultural loan repayments to crop failure. However, Moore believes that the cycle of loans, default in repayments, suspensions of credit and commencement of a new cycle of lending and default is not linked to "crop failure and thus the ability to repay" but to a more complex problem associated

[32] Samarasinghe defines 'institutional credit' as "credit granted by institutional agencies comprising the government and government sponsored credit schemes, commercial banks and other financial institutions" (1977:49).

with a history of paternalism and partisan politics (1985:93). Nakamura *et al.* highlight the faults of both the institutions and rural community pointing to:

> "The supply of credit for small holders without examination of the purposes for which money was borrowed... the belief that rural borrowers are either dishonest or incapable of using loans for productive purposes is widely spread... It should [also] be emphasised that "community attitudes to institutional credit" contributed to high rates of default in the rural sector. The attitude was strong among the rural community that institutional credit was subsidy like food stamps. Free education or free medical facilities, provided to the rural community by the government and that it is not essential to repay it" (1997:273).[33]

Another issue of importance is the level of access to rural credit. For example, those with no title to the land they farm are often excluded from institutional credit, subsidies and other forms of agricultural assistance such as extension. Hulme and Montgomery (1995) highlight the role of the SANASA programme (Thrift and Credit Cooperative),[34] which offers a potential source of credit to poor rural farmers. Hulme and Montgomery point out that:

> "In Kurunegala and Moneragala only 20 per cent had received loans from banks or official sources. Some 70 per cent had never approached the formal sector for a loan, and just under 10 per cent had applied but had been refused... Importantly, this lack of access to banks was more pronounced for poorer households: 85 per cent of those with monthly household incomes of less than Rs3000 had never applied to banks, while only 64 per cent of those with incomes above that level had never applied" (1995:106).

However, they also highlight that in order to reach the poor, SANASA has to maintain its distance from the state to avoid "the debilitating effects of party political manipulation". They state:

---

[33] In addition, Nakamura *et al.* states that the "farmers have been made to think that even if they do not repay, they could receive credit facilities again and again from the same institutions, as the government has, on many occasions, written off loans not repaid" (1997:273).

[34] SANASA was initially introduced in 1906 in order to "solve the problem of 'rural credit' and to assist the 'progressive' farmers in raising agricultural production". It was overshadowed by state-supported multi-purpose cooperative societies (MPCS) but re-emerged in the 1970s determined to involve poorer people within its members (Hulme and Montgomery, 1995:105). A SANASA society did exist in the villages but it was not as active as other credit schemes.

"Much of the success of SANASA lies in the ability of its leadership, interacting with the membership, to walk the political tightrope of keeping a sufficient distance from the state to avoid the myth of 'public interest' but never threatening the state in ways likely to attract retaliation" (ibid:112-113).

Extension Services

Extension services in Sri Lanka generally operate on a crop specific basis. Nakamura *et al.* state that:

"Sri Lankan extension services have mainly been directed towards educating the farmers in the use of new agricultural technologies for the improvement in productivity, increase in the income level of farm households and the achievement of self sufficiency in the country's staple food" (1997:276).

In order to achieve this, a 'top down' approach was developed which linked various chains of command, from research stations to extension workers, and operated at the levels of national, district, division and village. A training and visit system was introduced in the early 1980s but has achieved relatively poor results. The problems lie on two levels: firstly the extension officers,[35] who have the closest relationship with the farmer, may not have sufficient knowledge of the new technology they are supposed to promote. They may not be able to reach the villages due to transport difficulties; spend time on considerable paperwork or because they are simply too busy with other activities, taken on to supplement their low wage (Nakamura *et al.*,1997:276). Chambers and Wickremanayake emphasise that:

"...Agricultural extension at the field level is difficult to examine and easy to misperceive...The official rationale is presumably that staff will work harder and do what is required and programmes will succeed more if statistics derived from some senior imagination are disaggregated down the hierarchy with sufficient authority to induce those at the bottom to try, or, try harder to turn them into reality. The reality, as is well known is made to exist on paper" (1977:162).

[35] The KVS or Krushi Vyapthi Sevaka (Nakamura *et al.*, 1997:276).

Secondly, it has been noted in development circles, that farmers will adopt technology only if the innovation is likely to be of benefit to them and factors such as the methods used and relationship between the extension officer and farmers must be taken into consideration.

The extension services in Sri Lanka suffered a major blow in the early 1990s when the leading support section of the extension hierarchy, in the Agricultural Department and Agrarian Services, was discontinued and staff absorbed into the administrative services (Nakamura *et al.*,1997). In Moneragala, the Agricultural Department now concentrates on 'development' instead of 'extension' although they still depend on extension officers for information on villagers. Moneragala district is often thought of as a 'punishment post' because of its isolation and harsh terrain. Thus, as Leonard (1977) has highlighted, the extension visits (and benefits) are greatly skewed in favour of 'progressive farmers'. Unfortunately this carries the danger of neglecting those most in need.

Devolution of Power

Moore *et al.* believe:

> "There are four major reasons why regular government agencies in Moneragala district are less effective at delivering development services than they should be. One is specific to the district: the very high levels of turnover of senior staff. The other three reasons are national: the orientation of individual agencies to supplying particular services that they are able to deliver, rather than meeting people's needs; the neglect of maintenance of physical infrastructure; and the confusion that has been introduced into public administration over the past five years by a series of major constitutional and administrative changes" (1995:3).

In 1989 and 1991, two successive Sri Lankan governments attempted to decentralise[36] public administration with increasing responsibility given to the Assistant Government Agent and Provincial councils at the divisional level.[37] Griffin highlights how:

> "Greater political power for the poor can be achieved by decentralising the public administration and making government more accountable to groups, by providing greater participation by the poor in the institutions that affect their well being, by helping the poor to become organised into effective pressure groups and by exploiting more fully the numerous opportunities that exist for local resource mobilisation" (1999:30).

However, the main impact of these changes was to throw public administration, formerly based on the principle that the district is the most important unit of local administration with the sharing of power between the territorial administration and individual line agencies,[38] into confusion. For example, as Moore *et al.* note:

> "The introduction of the Provincial Council system in 1989...increased ambiguity in lines of responsibility through introducing a totally new tier of administrative, political and electoral organisation above the district level...in 1991...the Division, hitherto subsidiary to the District [became] the basic Administrative unit...the district administrator (Government Agent) [lost] all control over the Divisional Secretaries (formerly Assistant Government Agents) who ran the divisions...The impact of all these changes on government agencies was very complex. There was continual change and uncertainty as line agencies were re-organised to cope with the changes" (1995:5).

While the devolution of power could be viewed as a major step towards the goal of alleviating poverty and reducing inequality, it also raises a number of issues,

---

[36] Goldman defines decentralisation as: "The transfer of the locus of power and decision making either downwards (sometimes referred to as vertical decentralisation) or to other units or organisations (sometimes referred to as horizontal decentralisation)-the power that can be transferred can be political, administrative or fiscal" (1998:40).

[37] However, Lakshman states that: "Although the system of Provincial councils was introduced for the devolution of power, it is doubtful whether there was *de facto* devolution of power and decentralisation of administration, to any significant extent..." (1997:190).

[38] Such as Health, Education, Agriculture, Irrigation etc. (Moore *et al.*,1995:4).

which tie in with the history of development in Sri Lanka and the various development strategies tried over the decades. A closer look reveals a long record of paternalism and corruption, which inherently challenges the goal of 'relieving' poverty in a sustainable manner. Indeed Goldman points out that, in the 1980s some developing country governments became interested in decentralisation "as a means of regaining political legitimacy...or sometimes to gain partisan advantage" (1998:39). During an interview with a government official in Moneragala, he explained that with the decentralised budget, provincial councils had money which they could not utilise themselves so they give it to line agencies who conduct development asking them to develop 'my group' or 'my idea'. At the village level most aspects of rural life have become 'politicised' (Gunasekara, 1994). Richards and Gooneratne demonstrate how Sri Lankan citizens are very aware of their right to vote especially in relation to dismissing unpopular governments (1980:3). However, as Moore points out, the change from one governing party to another often determines which part of the population (depending on which party they actively support) will receive the most effective support. He states: "Government support for any activity, locality or population is commonly couched in terms of the granting of 'relief' or of 'due privileges', while allegations of past failure to provide support are termed 'Cinderella' or 'step-motherly' treatment (1985:227). Most societies in the village exist in name only. For example, one villager explained:

The Rural Development Society does not work because people are otherwise busy...If members were connected, active...they could get government contracts...They could work, use shramadana[39] *and get savings...through the society they have strength but* [there have been] *malpractices...officers do not give profits to society members.*

[39] Communal labour which is voluntary and for the benefit of the 'community'.

Politics and Partisanship

Bandarage explains that from the beginning of colonialism there has been a paternalistic attitude towards the peasant sector:

> "The disparagement of the Sinhalese as an uncivilized, indolent childlike and inferior race became common place... the planters who were exasperated by the Kandyan peasantry's refusal to hire themselves out as estate labour, were not the only ones propagating the myth of the lazy native. Most colonial officials also subscribed to these racist and paternalistic views. The myth of racial superiority of the British became a necessary justification for colonial exploitation" (1983:303).[40]

Moore highlights the attitudes of the controlling 'elite' towards the rural peasants, which is linked to "a sense of obligation on the part of the elite to use state power on behalf of the 'peasantry', combined with a reluctance to trust 'peasants' to manage effectively their own personal and household affairs" (1985:2). The outcome of such attitudes, coupled with a long history of separating crops into manageable (or easily controlled) government departments is that "the smallholder population is internally differentiated by crops grown, especially between producers of export cash crops (tea and rubber) and producers of food crops for the domestic market (paddy and other food crops)" (Moore,1985:6). Yet, despite the apparent concerns for rural peoples' welfare, which merges into nationalistic rhetoric, idealising the 'rural community' and the role the state has played in promoting the interests of the peasant, there exists a widespread inability to foster collective action for development as communities are in reality divided by caste, class and party allegiance. Gunasekara believes that such divisions are responsible for the "moribund nature of many rural development organisations in Sri Lanka" (1994:2). Furthermore, Jayasuriya and Dunham discuss how:

[40] Although Bandarage does point out that some provincial officials and governors did hold sympathetic views of peasantry (ibid).

> "Politics in the countryside was never really about policies. It was driven by competition between families, factions, villages, parties or ethnic groups for a bigger share of the substantial pot of resources that the state was allocating, and by the struggle for key positions of influence over the selection of beneficiaries. A major inheritance of welfarist policies of successive governments was thus in essence a clientelist state structured by networks of patronage" (2001:23).

Thus, it seems that paternalism has been coupled with corruption in Sri Lanka which has encouraged an 'exchange' mentality. For example, having access to political power can pave the way to lucrative projects and jobs. De Silva describes the actions of Government members, which he calls "discrimination on political grounds". He says:

> "This form of discrimination is a comparatively novel one in the context of the liberal political traditions of Sri Lanka. Preferential treatment of supporters of the government in recruitment and promotion within the state service has always been a feature of the process of government in Sri Lanka since independence, but now, for the first time, preferential treatment of government supporters was 'institutionalised'...the bases of appointment were political affiliation, personal connection, or still more dubious considerations " (1981:549).

With the increase of foreign aid after 1977,[41] politicians and bureaucrats have benefited enormously from securing control over development projects, from which they have received 'unofficial commissions'. While Goldman highlights the strategy of decentralisation, supported by the World Bank, as a "cost effective way of administering government", he also notes that politicians can access funds at the local level, which can be used to reinforce patron-client relations (1998:41).

[41] Jayasuriya and Dunham also point out that economic reforms and massive military expenditures have provided new and lucrative sources for corruption (2001:13).

One of the fundamental problems of sustainability is that poverty oriented development requires policy changes, which "put the needs of poor people at the centre of policy making" (Actionaid,1994). However, as Griffin points out:

> "In many Countries the public administration is not well suited to implementing a development strategy which focuses on the elimination of poverty...the relationship between the state and the poor is un-conducive to the mobilisation of large numbers of people for development. The hierarchical structure of government makes it difficult to identify and implement the myriad of small, labour- intensive projects implicit in basic needs development at the local level...and the style of administration means that government lacks flexibility and sensitivity to the needs and wishes of those in poverty" (1999:174).

Moore *et al.* explain how in Moneragala there is a general absence of a 'needs orientation' and development is plagued by:

> "The preferences of the politicians, who largely rule the line agencies, for highly visible projects...simple lack of concern for the ultimate 'client'; the corrupt diversion of resources into the pockets of politicians, contractors and officers; and, last but not least, the willingness of aid agencies to support perverse behaviour by funding the construction programmes put forward by individual government agencies"(1995:4).

Nevertheless, various stakeholders continue to implement projects in Moneragala despite the frustration of having to negotiate their way through rigid and corrupt bureaucracy. An interview with an official from the Department of Agriculture (Moneragala), Dr Senanayake, highlighted a number of key constraints they faced, which, in most cases contradicted stated policy.[42] Two examples, linked to the construction of agricultural wells and the cultivation of tobacco, illustrate the perpetuation of partisanship through inappropriate development projects and the confusion caused by a lack of communication between stakeholders.

[42] In 1994 the SLFP-led coalition, Peoples Alliance (PA) claimed that their agricultural policy would seek "to remove the institutional and policy obstacles which have reduced agricultural profitability and constrained investment" (Nakamura *et al*, 1997:290)

Partisan development in Moneragala continues because, "among the Sinhalese...politics is seen as one of the major routes to individual success in life" (Moore,1992b:30). Dr Senanayake explains how an agricultural well project captured a politician's attention with alarming consequences for environmental sustainability:

> "*In Moneragala we have officially 2002 wells...only 10-20% are used for agriculture. The problem is this, in Moneragala district we conducted a survey (writes on paper)...this is Pelwatte, this is Moneragala, this is Buttala, this Wellawaya. This is the most potential triangle for agri. wells. Unfortunately this area is under Pelwatte sugar company. Then normal farmers can't get this potential catchment area, for the groundwater. Then in Wellawaya area...in 1984 two farmers, pioneers used the agriculture wells...we introduced cash crops to them. They realised this was a very profitable type of agriculture. Then the politicians got the message. They realised this is a good method for collecting votes. Then they set a target 200, 400, 500 wells per year like that. They gave a big target to the Agricultural Development Authority. There are no technical officers in that department authority [but] there are guidelines in the agricultural department. We know about the guidelines [but] we just follow the politician's orders. Now there are many problems...salinisation...many wells have no water. Now they are shouting at the farmer but the farmers are not the real problem.*

Bond and Hulme also note that the agro-well program was "politically driven...where grant assistance was being abused and going to inappropriate areas" (1999:1346).

In addition to the problems of having to negotiate with influential politicians, projects need to negotiate the gaps in communication and co-ordination. Bond (2001) highlights the conundrum facing development in Moneragala

> "What was lacking was any institutionalised ability to learn from either success or failure of attempted solutions; and any co-ordinated planning system. There was also a marked compartmentalisation of effort, agencies neither communicated nor co-operated. There were deep attitudinal obstacles, which posed a threat to any project hoping to achieve these ambitious ends within the short to medium term... The state had a strong ethos of control, regulation and provision for the people within a bureaucratic culture where risk taking is

> discouraged...The NGOs were numerous but isolationist and arrogant, considering that they alone and individually were capable of improving the lot of the poor, rejecting the perceived 'error' of other NGOs, 'corruption' of government and 'exploitation' of business" (p.3).

The high turnover of staff on many short-term projects can also affect the 'institutional memory' of agencies leading to the same mistakes being repeated. The resulting confusion for all stakeholders, including the farmers 'on the receiving end' of varied, often conflicting, advice is certainly not conducive to sustainable development. Dr Senanayake recounts an incident in one village where three agencies, the Intermix Tobacco Company, the Agricultural Department and ICADA, fought over the right to 'develop' the same farmers:

> *The Intermix Tobacco Company operates in Mahagodayaya. It encourages farmers to use powerful chemicals, pesticides and fungicides. Also conducting development with the same farmers is an NGO, ICADA* [Integrated Community Agriculture Development Agency], *who encourages farmers to use bio-methods. Also conducting development with some of the farmers is the Agricultural Department – encouraging farmers to use correct guidelines-for example- correct amount of fertilisers, pesticides etc. So with the same target farmers you have three groups encouraging them to do different things. One saying 'use biodiversity, organic methods!', the second says, 'use regulation chemical!', the Intermix Tobacco Company is saying 'use as many chemicals as possible for lovely large leaves!'*

What is evident from a brief review of development in Moneragala is that while strategies are varied and constantly changing, the goal of relieving poverty through sustainable intervention remains constant. Yet, the extent to which the poor and vulnerable are able to access any of the benefits on offer is unclear.

Conclusion: Aiming for a Sustainable Future?

A review of the history of 'development' strategies and their influence on policy and practice in Sri Lanka is important when examining what is happening at the grass roots level. Moneragala district is a good example of the difficulties

associated with trying to put into practice sustainable, agricultural schemes, aimed at alleviating poverty, using up-to-date, globally influenced strategies such as the livelihoods framework and participatory techniques.[43] The contentious arena that 'would-be' developers find themselves entering is one dominated by paternalism, inequality, a welfare mindset, widespread corruption and coercion, suspicion, fragmented communities and a general lack of communication and co-ordination at even the lowest level of administration. Indeed, Griffin believes:

> "The debate today is not over whether inequality has increased but whether it is inevitable. The balance of recent evidence suggests that the degree of inequality is not closely related to the level of income per head, as was once thought, but to factors dependent upon the strategy of development that is followed" (1999:16).

There are wider limitations on the development of sustainable agriculture in Sri Lanka, which must be taken into consideration. For example, the result of liberalisation, as Dr Senanayake points out, is that anybody can import a product without restriction. The imports are often cheaper (such as maize from the USA) and Sri Lankan producers cannot compete. Seeds,[44] pesticides and fertilisers are often imported. Sometimes traders introduce hybrid varieties which are not sustainable. Banned chemicals are smuggled into the country or labels with expiry dates are switched. In the end farmers have to invest more money. Nevertheless, Moore *et al.* believe that:

> "Despite the water shortage, Moneragala has real agricultural potential. The limited involvement in rice production may be seen as an advantage: market forces are moving in favour of 'non-traditional crops', (i.e. crops other than rice, tea, rubber and coconut), in which Moneragala specialises" (1995:1).

---

[43] For a discussion of participatory development see Chapter 6.

[44] Dr Senananyake says: *" Seed is very important. It is tested in quarantine. If it is okay it is released but there is no way to find the origin".*

This chapter does not attempt to evaluate the feasibility of the rubber-intercropping technology itself (although it is important to try and understand the extent to which the technology can 'survive' once the actual project has ended), but explores some of the external influences that may impinge on the sustainability of any development intervention in Sri Lanka. However, there is a danger that such a review of the changing strategies of development in Sri Lanka over the centuries may lead to an overly critical opinion of current practices. Uphoff warns against taking such a stance, believing:

> "The way we think about social reality affects our opportunities for making progress, both with and for people. Many constraints are created through our mental constructs. So, in addition to dealing with material conditions we need to work effectively in the realm of ideas... The challenge in development work is how to make possible outcomes that are deemed desirable somehow more probable" (1996:vii & 299).

Uphoff advocates the idea of 'post-Newtonian' social science, which, he says, views "the social world more in the way physicists now regard the world of quantum mechanics – as inherently and inescapably uncertain" (ibid:399). He criticises the role that social scientists have played in development stating:

> "This has too often been either to make dire prediction- such as "rural elites will capture all the benefits" or "bureaucrats will sabotage the effort" – or to make glossy estimations of success that later prove wrong while someone else gets blamed for faulty implementation" (ibid:300).

Instead, Uphoff claims that while there are no permanent victories in development, we should nevertheless "proceed on the assumption that there need be no permanent defeats...setbacks and obstructions [such] as bureaucratic, political ethnic or other problems] need not be accepted" (ibid:168).

A critique of development efforts is still necessary, though, especially while poverty, in all its forms, is a problem. As Griffin points out: "Basic needs is not really about things at all – either gross domestic product (aggregate things), or food, health, education (a bundle of specific things). It is about giving priority in development to the needs and desires of poor people" (1999:172). Indeed, Easter notes that while South Asian countries such as Bangladesh, India and Sri Lanka have adopted similar strategies for poverty alleviation, "such as asset transfer, wage employment and income transfer...the design of programmes has in some cases led to the poorest of the poor being omitted from the targeted groups" (1995:13).[45] Moore also highlights the continuing danger of a colonial-style paternalistic view of the peasant sector in Sri Lanka, stating:

> "When the smallholder economic performance fails to meet expectations then the elite can, and in Sri Lanka it often does, turn for explanation – and implicit diversion of blame away from the government and state – to the darker side of their image of the peasant: a man of limited foresight and responsibility, who, if not carefully supervised, will fritter away his substance, especially cash" (1985:118).

It is especially important that local people are given a voice if development in Sri Lanka is to totally embrace the challenge of 'bottom-up' participation for a sustainable future. The demand for anthropology, perhaps, is to keep an eye on and facilitate this process, whilst recognising the methodological and epistemological implications of intervention.

[45] Woost notes that: "The drive for NIC status in Sri Lanka is geared toward rapid industrialisation and the expansion of agribusiness ventures" (1997:233).

5

Power and Development

"All human beings are supposed to have power, although no one can say at the outset just who will control the most" (Adams, 1977:389).

"What game do we play and who defines the rules? Whose Knowledge? Who defines what is knowledge? Who has rights to Knowledge? Who defines these rights? (Gupta,1991:17)

The concept of power in development has been a central topic of debate since the 1960s and has taken on added importance when associated with 'empowerment' or self-determination.[1] This chapter attempts to tackle power on multiple levels as I explore the significance, for rural development, of understanding notions of 'power' and 'empowerment' and what these may represent to various stakeholders. I am not concerned with measuring the amount of power a person or institution may have or choose any one particular theory to explain power relations in Sri Lanka. What I would like to do is use a range of theories and observations from a wide selection of literature to try and make sense of development in Sri Lanka and to consider how social interactions may affect sustainable intervention. Henkel and Stirrat claim that it is difficult to find a development project that does not claim to "adopt a 'participatory approach' involving 'bottom-up' planning, acknowledging the importance of 'indigenous knowledge' and claiming to 'empower' local people" (2001:168). Thus, we need to 'peel off' the rhetorical outer layers in order to

[1] Nelson highlights that: "A number of writers on development have expressed concern that target populations should participate equally in the development process. In other words, that they should have self determination in the decisions concerning their own welfare and management of their own economic affairs" (1979:4). Issues surrounding 'participatory' development will be covered in Chapter 6.

reflect on the discourse of development and to recognise the powerful nature of knowledge.

This chapter will only be able to touch on a few of the many complex issues surrounding power and knowledge but it is important to try and examine the problems of inequality at the local level and how development is trying to overcome this quandary. For example, in Sri Lanka there are increasing efforts to improve the effectiveness of organisations in empowering the rural poor. Griffin states:

> "If civilisation invented poverty and if social status defines it, presumably man in society operating through institutions he has created, or if necessary through new institutions, can abolish poverty...Thus if a development strategy has as one of its objectives the reduction of poverty, it will have to address itself to the question of inequality" (1999:14).

Understanding the significance of power in development is particularly relevant for appreciating how sustainable intervention is often influenced by how people interact and form relationships. The project, which aims to disseminate 'knowledge' not only through extension services and farmers themselves (in the form of leaflets on rubber-intercropping technology), but also in the wider global arena (e.g. articles on the people of Sri Lanka and development issues) will benefit from an examination of the ways in which social interactions are often embedded in relations of power. For example, Gunasekara suggests that: "Knowledge of the local power hierarchy is one of the most crucial aspects of the study of agrarian change and rural development [in Sri Lanka], because it is here that the aims of central policy interact with the grassroots reality of village life" (1992:229).

However, in order to examine relations of power at the local level, it is necessary to locate power structures within the wider political and social field of development. In keeping with Rew's call for anthropologists to "tackle power relations head-on" (1985:185), a number of issues need to be engaged with here in order to assess how development 'really' works when it sets out to 'empower' the rural poor. Shore and Wright explain that: "... anthropologists are in a unique position to understand the workings of multiple and conflicting power structures which are local but tied to non-local systems" (1997:13). Nevertheless, the role of the anthropologist, as a member of a development research team, must also be examined within this context, for as Hymes points out:

> "The fundamental fact that shapes the future of anthropology is that it deals in the knowledge of others. One must consider the consequences for those among whom one works of simply being there, of learning about them, and of what becomes of what is learned" (1974:48).

Power and Knowledge

Ideas about power, what it encompasses and its relationship to 'knowledge', differ in many ways, validating Lukes' assertion that power is an "essentially contested concept" (1974:26). Notions of power may depend on the context in which it is being used (in my case, development) and the applicability of various theories although we must be wary of accepting too readily a specific point of view. Time and again, authors have provided their own interpretations of power and 'power holders' whilst also warning against the dangers of trying to supply a comprehensive analysis. As Galbraith points out:

> "Not many get through a conversation without reference to power. Presidents or Prime Ministers are said to have it or lack it in the requisite amount. Other politicians are thought to be gaining in power or losing it.

> Corporations and trade unions are said to be powerful, and multinational corporations dangerously so...However diversely the word is used, the reader or listener is assumed to know what is meant...And doubtless most do - to a point" (1987(1984):211).

We may ask, what comprises power in Sri Lanka? Galbraith is right; I do have some idea of who has power (or, at least, I think I do) and what it is. In Sri Lanka I would say that Government officials and the politicians have power because they can make things happen or not such as bringing electricity to the village. At the international level, it is the western countries such as America and Holland that seem to have power over Sri Lanka because they fund 'development', bring industry and invest money. Tied in with this are the intricate power relations that exist between various members of any community, perhaps based on caste, class, age or gender. I consider myself to be the least powerful member of the project team but associating with me in the village could secure a farmer his rubber subsidy where he might have otherwise had to wait for some time. Is this power?

An example of a theory of power is presented by Dahl (1987 (1968):40). He calls attention to the difference between *having* and *exercising* power and influence, particularly where "anticipated reactions function as the basis for influence and power". He provides an example of the problems inherent in analysing complex interactions:

> "Let us suppose that even in the absence of any previous communication from the President to Senator R, or indeed any previous action of any kind by the President, Senator R regularly votes *now* in a way he thinks will insure the President's favour later. Thus while Senator R's voting behaviour is oriented towards future rewards, expected or helped for, his votes are not the result of any specific action by the President" (ibid).

From this illustration, we can understand that the President holds or possesses the capacity to confer 'favours' and, even though he does not *exercise* his power, he gains the 'willing compliance' of the Senator.

Dahl believes that what distinguishes *having* power from *exercising* power is the "presence or absence of manifest intention" (1987:52). However, there is a further approach to understanding the above relationship, which is made clear by Simmel's analogy of the journalist's relationship with the public. He states:

> "The journalist gives content and direction to the opinion of a mute multitude. But he is nevertheless forced to listen, combine and guess what the tendencies of this multitude are, what it desires to hear and have confirmed, and whether it wants to be led. While apparently it is only the public which is exposed to *his* suggestions, actually he is as much under the sway of the *public's* suggestion. This...is hidden here beneath the semblance of the pure superiority of the one element and a purely passive being-led of the other" (1987 (1950):207).

Weber (1987) also presented a theory of power which involved the ability to impose your will on the behaviour of others, even those who provided some resistance, through traditional, charismatic or legitimised forms. The greater the capacity to impose this will to achieve the intended purpose, the greater the power (Galbraith, 1987:212), although Weber did note that relationships of 'domination' could exist reciprocally (Weber,1987:34).

Discussions on power could focus primarily on relationships between those with more power and those with less, where direct conflict or competition over interests is crucial for revealing power relations. However, a multi-dimensional view, as advocated by Lukes (1987), also uncovers the hidden range of power where through coercion, influence, authority, force and manipulation those in power "control the agenda of politics" and thus keep potential issues (conflicts

of interest) out of the political process. In addition, this view takes into account that power may be exercised (without conflict) in the form of shaping and influencing wants. Indeed, as Foucault points out:[2]

> "In defining the effects of power as repression, one adopts a purely juridical concept of such power, one identifies power with a law which says no, power is taken above all as carrying the force of prohibition. Now I believe that this is a wholly negative, narrow, skeletal conception of power, one which has been curiously widespread. If power were never anything but repressive, if it never did anything but to say no, do you really think one would be brought to obey it? What makes power hold good, what makes it accepted, is simply that fact that it doesn't only weigh on us as force that says no, but it traverses and produces things, it induces pleasure, forms, knowledge, produces discourse" (1987:119).

Rouse believes that the numerous ways in which people are "enclosed, grouped, distributed, separated, and partitioned mark a related spatial organization of power [and] knowledge... [which] constrain our patterns of activity and interaction"(1987:216). Indeed, Moore describes how public policy in Sri Lanka influences individual interests and the ways in which they are perceived (1985:3-4). He states:

> "Successive Sri Lankan governments have in effect, if not by intention, helped thwart the creation of smallholder political class consciousness by instituting, at an early stage in the process of the induction of smallholders into competitive electoral politics, public programmes which diverted attention and political energies of smallholders in other directions" (ibid:9).

Governance and policy-making are also influential vehicles for power in national and international development. Shore and Wright question how, "normative claims [are] used to present a particular way of defining a problem and its solution, as if these were the only ones possible, while enforcing closure or silence on other ways of talking..." (1997:3). Interestingly Shore and Wright

[2] Foucault discussed notions of power and knowledge within specific contexts such as the enactment and implementation of laws, prescription and execution of punishment, sexual deviation and formulation and administration of policy (Rouse, 1987:216).

highlight notions of 'control', such as the 'instrumentalists' view of government, which implies top-down policies regulating a population through 'rewards and sanctions' (ibid). Nevertheless, they also suggest another way of examining policy, which they call 'governance', referring to:

> "The more complex processes by which policies not only impose conditions, as if from 'outside' or 'above', but influence people's indigenous norms of conduct so that they themselves contribute, not necessarily consciously, to a government's model of social order" (ibid).

Lukes multi-dimensional view of power suggests that when analysing social relationships we need to ask, "what makes A affecting B significant"? (1974:26). He also highlights that not all 'outcomes' or 'differences' that we make to the world will have resulted from a relationship of power. Instead, Lukes proposes that outcomes of power must be placed in context of the desires and beliefs of the powerful and thus serve their interests (1987:5). He goes on to ask how 'interests' can relate to desires and beliefs stating:

> "The answer is complex, but here a few points are worth stressing. First it seems, on the face of it, odd for someone to believe that he or she has an interest in something but not want it. On the other hand, second, one can fail to want something that is in one's interests, either because one does not know it is in one's interest(s), or because one does not know it is causally related to what is in one's interest(s), or because one may have other overriding wants, principles or passions" (ibid:6).

Lukes outlines an interesting example of what he calls the 'service conception' of power where the powerful person presents him or herself as serving the interests of others. He points out that:

> "...this service conception is usually and especially favoured by the powerful and those employed in defending and promoting their power...the interests, and thus by extension the wants and goals, that power outcomes exemplify are adopted and interpreted by the powerful on behalf of those they claim, or are claimed, to serve" (ibid:7).

A form of the 'service conception' exists in Sri Lanka. For example, Moore suggests that after independence, a paternalistic attitude towards the peasantry by politicians were presented, through various mediums, as a "sense of obligation on the part of the elite to use state power on behalf of the 'peasantry'. [However, this] was combined with a reluctance to trust 'peasants' to manage effectively their own personal and household affairs" (1985:2).

Despite current concerns with participatory development in Sri Lanka, Mosse highlights a 'paternalistic' aspect of this approach that could be said to exist within the rubber-intercropping project, particularly amongst the research-led experiments. He states:

> "The evolution of a participatory strategy into a set of patron-client relationships is perhaps unsurprising in a region where...farmers have historically engaged with outsiders as clients, whether they are departmental employers (e.g. forest, public works department), labour contractors, traders, money lenders, or development projects" (2001:30).

The researcher-led experiments based on the intercropping of up to three rows of banana in between rows of rubber and with different fertiliser treatments were deemed participatory by the project. I was not involved with the researcher-led villages but on hearing about the experiments, participation seemed primarily to entail rubber-growing villagers (who expressed interest in joining the experiment) receiving free banana plants. In return, they were asked to follow the scientists' instructions whilst also periodically sharing their local agricultural knowledge to the visiting social scientist. The term researcher-led implies that the researcher will be in control but I always felt uneasy about calling this aspect of the project participatory. My observations highlight two concerns, which will be explored further in Chapter 6. Firstly, the term 'participation' is

sufficiently ambiguous to be open to manipulation. Consequently the term can mean different things to different people (even within the same project). Second, the participatory approach in Sri Lanka can simply perpetuate inequality through long-standing power relations based on the patron-client association. As Woost points out, in Sri Lanka:

> "By and large, development was understood to be a process in which outsiders brought wealth and improvement to a settlement or to the individual families from outside the village boundaries. In general development was something that someone powerful and wealthy brought to you or gave you access to. It was not usually thought to be a process over which poor villagers themselves felt that they had any control...To put it succinctly they interpreted development as a status that was attained through the cultivation of good patron-client relationships" (1997:247).

It could perhaps be argued that the current language (or discourse) of participatory development, which focuses on terminology that seeks to imply that the rural poor will be better off, also serves to mask the mere continuation of control, power *over*. Indeed, Henkel and Stirrat (2001) suggest that, despite the problems of modernisation strategies, the advocates were at least aware of what they were trying to do whilst followers of participation may be less aware of the implications of their activities.

This initial review of some ideas of what constitutes power highlights the complex nature of trying to analyse social relations and serves as a warning against simplistic deductions (although at times I think this may be unavoidable). Notwithstanding that any understanding of power is generally subjective and also has to be placed within context, I found the various discussion of power outlined above helpful when trying to analyse relations of power in development in Sri Lanka. For example, Foucault's challenge to

orthodox analyses of power, which focus too heavily on the state and national institutions when he believes we should look to the micro points of power, is appealing (Kothari, 2001:141).

Although many theories of power are not specifically related to development discourse and some are not resonant with current global situations, they can still be relevant as development has often been described to me as a 'political battleground'. Lukes poses some questions that can be asked in the context of "relative scarcity and competing claims" such as: "Who can adversely affect the interests of whom? Who can control whom? Who can get what?" (1987:10-11). Such questions are particularly relevant when attempting to examine the role of knowledge in the empowering process. While it is beyond this chapter, even this thesis completely to unpack the complex meanings of 'knowledge', it is important, particularly in the context of development to try to understand some of the ways in which 'knowledges', are used in the negotiation and transformation of social relationships at all levels. Indeed Long suggests that an "understanding [of] the encounters between various types of knowledge and ideology is central to the analysis of rural development" (1996:57). It is also important to consider the power of knowledge for as Wright points out, "no knowledge is 'pure' in the sense of 'free from power'" (1995:78). Crush believes that in analysing the consequences of development we should consider, "...the impact of post-modern, post-colonial and feminist thought which have converged upon the truth claims of modernism and shown how the production of western knowledge is inseparable from the exercise of western power" (1995:3). He emphasises the value of alternative ways of knowing and the

current struggle within the development arena to "loosen the power of western knowledge" (ibid:4).

Why is it important to understand the significance of knowledge and power in development? Escobar believes that development since the Second World War has functioned "as an all-powerful mechanism for the production and management of the Third World" (1995:213). He considers that "development can best be described as an apparatus that links forms of knowledge with the deployment of forms of power and intervention resulting in the mapping and production of Third World societies" (ibid). However, as I have already pointed out, Foucault maintains that power is not simply "negative, repressive, and prohibiting" but also "positive and productive, and explicitly bound to knowledge" (1982:59). He believes that, "without the exercise of power, knowledge would be left undefined, amorphous, and without any hold on objectivity" (ibid:60). For Foucault, power and knowledge, invested within institutions as well as individuals, are directly related. There cannot be any power relations without a field of knowledge nor any knowledge that does not require or establish power relations (1985). Kothari uses Foucault's ideas in her analysis of current participatory development discourse. For example, she states:

> "Within much participatory development discourse, 'people's knowledge' or 'local knowledge' is seen as a fixed commodity that people intrinsically have and own. Instead, as is argued here, knowledge is culturally, socially and politically produced and is continuously reformulated as a powerful normative construct. Knowledge is thus an accumulation of social norms, rituals and practices that, far from being constructed in isolation from power relations, is embedded in them (or against them)" (2001:141).

Kothari highlights how participatory development encourages the identification, collection, interpretation and analysis of various forms of local knowledge but

that the production and representation of this knowledge cannot always be separated from the exercise of power (ibid:143). Indeed, the way an individual behaves, acts and understands is often shaped by the power "embedded and embodied within society" (ibid:144). Thus, in Moneragala it is important to understand the ways in which villagers' knowledge and experiences interact with sources of power that they can access (e.g. forms of authority such as political connections) in order to appreciate how people make alliances around the resources needed for sustainable livelihoods.

Empowerment

Cowen and Shenton consider empowerment to be merely another name for development with all the rhetorical and political implications (1995:28). Indeed, Cooke and Kothari (2001) maintain that we need to reconsider the claims to empowerment made by proponents of participatory development stating that by not recognising the many dimensions of power, participation can inflict more harm on the most vulnerable. The term 'empowerment' is often used in opposition to poverty (disempowerment), although as Henkel and Stirrat point out, it is often unclear what empowerment involves and who is to be empowered (2001:171).

In Sri Lanka, notions of empowerment are enmeshed within the use of the currently popular participatory development discourse, which is inextricably linked to ideas about 'the community' (a concept that will be discussed later on in this chapter). Empowerment of the rural poor in Sri Lanka has for some time also been linked to Buddhist, Sinhalese, nationalistic concerns that seek to 're-

create' a traditional rural past through revival of the 'community' that works together for their development.[3] As Woost points out: "During the late 1980s and into the 1990s, the discourse about community [was] complemented by an increasingly ubiquitous discourse about 'people's participation' and 'empowerment'" (1997:229). Woost believes that the continuing climate of patronage coupled with a new drive for investment-led development has contradicted parallel campaigns for participation of the people in their own development (ibid). Indeed he states:

> "...Investment-led development is said to create a brotherhood between the 'poor' and the 'rich' by forging a link between the 'big investor and the small producer'. Thus construction of development sets definite limits on people's participation. It does not give them the power to define development themselves. Rather development is a process in which the 'poor' benefit from the patronage of the 'rich'. The 'poor', in short, are not really empowered at all but are ushered into a new form of dependency...the poor can participate in development but only in so far as they do not attempt to change the rules of the game" (ibid:238-239, 249).

However, it seems to me that the idea of empowering of the poor through community involvement is at odds with 'individualistic' or 'factionalist' nature of villages in Sri Lanka, which, no doubt, stems originally from colonial 'divide and rule' policies. Indeed Uphoff notes in his book on *Gal Oya* (a region located in the Southeast of Sri Lanka), that:

> "There is a lack of cooperation not only between ethnic groups but also within the Sinhalese community. Sinhala settlers seldom go to each other's houses. They don't even give messages to one another...They are divided by caste, political and economic differences" (1996:121).

This 'disunity' has implications for sustainable development. As Burkey points out: "The poor themselves are very often...in competition with each other. Their

[3] Woost highlights how: "During the 1980s, the development terrain was populated by a host of public rituals that celebrated village community as the engine of development. Much of this rhetoric reflected Sinhala Buddhist nationalist concerns to create a new future by 'reviving' the supposed order of Sri Lanka's pre-colonial past" (1997:231).

difficult situations have taught them to distrust outsiders, local elites and each other...This distrust often results in an apparent resistance to change" (1993:44).

The language of development in Sri Lanka confuses our ability to discern power structures because most people, from the villager to the politician is adept at using it to some degree. Life is heavily politicised because access to resources can depend on your ability to manipulate and use the 'right' discourse. The most vulnerable, however, are often unable to 'jump on the development bandwagon' which places in danger project aims to empower those most in need. For example, Moore highlights that: "It has been possible for a large proportion of the rural poor [in Sri Lanka] including those already owning some land, to see themselves as having a good chance of obtaining a land allocation if only they could make the right political connection" (1985:9). Nevertheless, an important aspect of current development practices in Sri Lanka (and indeed worldwide) is the focus on increasing people's ability to access resources by encouraging farmers to act collectively through organisations. As Pretty and Ward point out:

> "A variety of studies of rural development have shown that when people are well organised in groups, and their knowledge is sought, incorporated and built upon during planning and implementation, then they are more likely to sustain activities after project completion" (2001:210).

Within DFID's sustainable livelihoods framework (www.livelihoods.org; see also Chapter 4), the social resources upon which people draw as part of their livelihoods strategy is placed under the heading of social capital.[4] Pretty and Ward identify social capital as an important part of sustainable livelihoods. It

[4] Pretty and Ward (2001:210) state: "The value of social capital was identified by Jacobs (1961) and Bourdieu (1986), later given a clear theoretical framework by Coleman (1988, 1990), and brought to wide attention by Putnam (1993, 1995)".

consists of formal and informal rules, norms and sanctions, connections through networks and between groups, all of which facilitate relations of trust, reciprocity and exchange (2001:211; Pretty, 1999). The livelihoods framework is a tool which assists an understanding of the:

> "Realities of the struggles of the poor people themselves, on the principle of their participation in determining priorities for practical intervention, and on their need to influence the institutional structures and process that govern their lives...it recognises multiple influences, multiple actors, multiple strategies and multiple outcomes...it is 'dynamic' in that it attempts to understand change...it attempts to 'bridge the gap' between micro- and macro-levels...it is committed explicitly to several different dimensions of sustainability: environmental, economic, social and institutional" (Murray, 2001:6).

However, Murray notes that there are conflicts between these dimensions (ibid). Bebbington (1999) highlights how access and social capital are key elements in the livelihood framework as they are concepts which can be used to analyse relationships between members of a household and other actors. He states: "The social capital debate...helps us understand how actors engage with other actors in the spheres of market, state and civil society in order to gain access to resources..." (ibid:2023).

An examination of social capital is particularly relevant to a study of development in Sri Lanka and Moneragala, especially with the current focus on alleviating poverty by increasing people's networks and thus their access to capital assets (with the assistance of social mobilisers etc.). Galbraith highlights the growing importance of organisations as a source of power, defining an organisation as "the coming together of those with similar interests, values, or perceptions" (1987:216). It will be useful to examine the current conviction in development that empowerment can be obtained through organisational

strength, particularly as in Sri Lanka,[5] such ideas are also closely linked with notions of a 'united community'. The reality of life in the rural villages of Sri Lanka is far from a picture of 'unity'. For example, Moore (1985) highlights how the crop-specificity of state organised rural development affected the potential of smallholder political unity. He says

> "In the first place, the general policy of dealing with each crop separately encourages farmers to believe that the characteristics of the crops is important, and thus to think of themselves as having an interest defined according to crops grown. In the second place, crop specific agencies do at least to some degree direct farmer's political energies into separate channels, and thus, everything else being equal, fragment rather than unify the political networks most directly responsible to farmers' interests" (ibid:163).

By using the sustainable livelihoods approach I was able to achieve a better understanding of the patterns of conflict and co-operation between differing 'institutional' levels. These levels can include "the micro-level of the household, the meso-level of institutional intervention through local government development agencies, and the macro-level of national policy-making" (Murray, 2001:3). This approach became increasingly meaningful as the project attempted to present its natural resource poverty reduction strategy (intercropping with more rows of banana) within a DFID supported sustainable livelihoods framework.

Building on Social Capital- An Empowering Process?

Bebbington states:

> "The extent that access to resources and other actors is the most critical asset that rural people need in order to build sustainable livelihoods, then people's endowments[6] of social capital are vital to their well-being.

[5] Although this may well be a worldwide problem.
[6] Defined by Leach *et al.* as, "the rights and resources that social actors have. For example, land, labour, skills and so on" (1999:233).

> Social capital inheres in the types of relationship that allow access, and thus a critical precursor to access being possible" (1999:2039).

Pretty and Ward explain that the increased focus on social capital has stemmed from attempts to learn from past development 'mistakes'. They state:

> "It has been rare for the importance of such local groups and institutions to be recognized in recent agricultural and rural development. In both developing and industrialized country contexts, policy and practice has tended to be preoccupied with changing the behaviour of individuals rather than of groups or communities. As a result, agriculture has had an increasingly destructive effect on the environment... There has been a rapid growth in interest in... 'social capital' in recent years... The term captures the idea that social bonds and social norms are an important part of the basis for sustainable livelihoods" (2001:209-210).

Thus, 'social capital' (local institutions)[7] builds on current concerns with sustainable development (through participation and inclusion of indigenous knowledge) in that it facilitates co-operation. However, while Putnam (1993:170) claims that trust is an essential component of social capital, Bebbington (1999) warns that it is very difficult to identify and assess such networks and norms.

Fine (1999) asks us to:

> "Consider, first, problems surrounding the definition of 'social capital'. It is usually distinguished from physical, financial and human capital, with these generally being interpreted from within neoclassical orthodoxy. Although it can require the use of economic resources, it has to be something over and above other types of capital but, as such, it seems to be able to be *anything* ranging over public goods, networks, cultures, etc." (p.4-5).

Nevertheless, authors such as Falk and Kilpatrick (2000) note that social capital is dynamic and dependent on the *quantity* and *quality* of interactions. Social capital cannot be built unless interaction occurs but the more it is used the more

[7] Leach *et al.* (1999) citing North (1990) distinguish between institutions and organisations. They state: "...institutions can be distinguished from organizations. If institutions are thought of as 'the rules of the game in society', then organizations may be thought of as the players, or 'group of individuals bound together by some common purpose to achieve objectives'...Organisations, such as schools, NGOs and banks exist only because there is a set of 'working rules' or underlying institutions that define and give those organizations meaning. Many other institutions have no single or direct organizational manifestation, including money, markets, marriage and the law, yet may be critical in endowment and entitlement [*legitimate effective command over alternative commodity bundles*] mapping processes" (p.237).

it regenerates (Falk and Kilpatrick, 2000; Pretty and Ward, 2001). Similarly, the quality of interaction is important for the development of social capital. For example, Falk and Kilpatrick state:

> "The quality of knowledge resources drawn upon in interactions and the degree of sharing of knowledge resources which takes place in interactions. Is there sufficient of the required kinds of knowledge about others, the common resources and information available to allow productive interactivity? Who knows what about whom and what? What is the contribution of external versus internal knowledge? How much do community members foster each other's learning by sharing knowledge resources?" (ibid:102).

So, why might the idea of social capital be important to rural development? There is a growing interest in the types of social capital that increases people's capacity to solve problems and empowers whole communities (Pretty and Ward, 2001). For instance, building on current concerns with involving indigenous knowledge in the development process, Pretty and Ward (2001) point out that farmers organizations can help agricultural research institutions become more responsive to local needs. In Sri Lanka, Uphoff (1996) describes the co-operation of farmers in a participatory irrigation project set up in Gal Oya to solve problems of access to water. The creation of formal (irrigation) organisations in Gal Oya facilitated the collaboration between officials and farmers. He says:

> "One of the incentives for farmers to work together and make contributions from their own resources to solve local problems is the cooperation they are now getting from local officers. Being treated with respect can be tremendously motivating to farmers who are used to being looked down upon by their social and educational 'superiors'"(ibid:96)

However, Uphoff does note that farmers made the conscious decision to keep politics out of the process.

In the villages of Mediriya, Therrapahuwa and Walamatiara, various institutions exist which mediate access to various assets.[8] Formal societies include the Funeral Aid Society, which meets every month at Therrapahuwa temple. Following a death within member household, it will donate money (Rs5000) towards the cost of the funeral, put up banners and shelter for guests, and all members are required to lend a hand to greet mourners and prepare for the almsgiving. The Samurdhi Society stems from a national programme to eliminate poverty in Sri Lanka with benefits ranging from Rs100 –1000 per month (Arachchi, 1998:29). Members are required to form small groups of up to five people (an attempt by authorities to build social capital), which meet monthly and set up communal savings accounts from which members can borrow for self-employment activities. Other formal organisations such as the Rural Development Society exist in name only. Amid charges of corruption against former society officials, there is no trust and consequently no organisation.

There are also a number of indigenous organisations which are customarily based on principles of reciprocity. Putnam describes 'generalized reciprocity' as a, "continuing relationship of exchange that is at any given time unrequited or imbalanced, but that involves mutual expectations that a benefit now should be repaid in the future" (1993:172). Bebbington notes that at the local level "networks of trust and mutual accountability linking individuals in communities (not usually all the community) are critical in helping break the problem of

[8] As Leach *et al.* point out: "...access to and control over these resources [e.g. land] is mediated by a set of interacting and overlapping institutions, both formal and informal, which are embedded in the political and social life of the area" (1999:227).

access..." (1999:2037). Informal labour networks such as *attam* can be used as a method of reciprocity to complete various jobs (see Case Study 4), particularly for paddy cultivation. Groups of men will prepare and harvest each other's paddy terraces in turn, enabling completion of tasks for which timing is critical: paddy can be sown or transplanted in time for the rains; harvesting and threshing can be done quickly so that the paddy seeds are kept dry for storage. Villagers who are in full time employment suffer from lack of access to this network. They are unable to participate in *attam* as they are not available throughout weekdays. When it is time to cultivate and harvest their own paddy they are forced to pay for hired labour.

Another informal group based on a network of trust is called *seethu* (described by Putnam (1993) as a rotating credit association) which is used to raise financial capital (see Case Study 4 below). A system of institutional credit is also available to villagers in recognition that "they lack the kinds of collateral that banks typically demand, appearing to represent too high a risk" (Pretty and Ward, 2001:216). While many households have taken advantage of a loan from the National Housing Association, villagers prefer to borrow from family and friends. Gunasekera attributes this to the important social institution of extended family (1977: 50). Another popular option is to pawn gold jewellery at the Rural Development Bank.

Case Study 4

Household 15
Danapala is originally from Passara. His wife, Dharamawathi, was born in Mediriya village to a large family with extensive networks of kin. Dharamawathi largely takes care of cultivation although Danapala uses land belonging to a neighbour in order to cultivate cash crops and they both engage in a sharecropping agreement for paddy. Danapala also engages in masonry, tree sawing and ploughing. To cover the labour necessary for maintenance of the home garden, two plots of land on which they have planted rubber, paddy and cash crops on borrowed land, they participate in *attam*, consisting of an informal group made up of their neighbours and kin who collectively work on each other's land. Dharamawathi and Danapala also use *attam* to carry out domestic duties such as cooking for large numbers of people and construction of buildings. With the weekly income from the sale of brinjal they also participate in a *seethu* credit group. There are twenty-four members in all with each person donating Rs100 a week. When the money has been collected it is given to one member of the group. With her share, Dharamawathi was able to reclaim her gold necklace pawned at the Rural Development Bank in Nakkala.

While Leach *et al.* (1999:238) highlight that the "multiplicity of institutional relations in which people are engaged in at one time...can promote mutual assurance among social actors, promoting cooperation and collective action",[9] they argue that any analysis of institutions, both formal and informal,[10] must be grounded in a theory of power. Importantly, they emphasise that different actors perceptions of the 'collective good' is often dependent on their social position (ibid).

In Chapter 4 I highlighted how a sustainable livelihoods approach could help identify people who may be vulnerable by examining people's access to available assets and the livelihood choices they subsequently make. Certainly in the village, social - or political - capital influences access to most other

[9] See also Putnam, 1993.
[10] Leach *et al.* explain that, "Formal institutions may be thought of as rules that require exogenous enforcement by a third-party organisation. The rule of law is an example, usually upheld by the state through such organizational means as law courts, prisons and so on. Informal institutions, however, may be endogenously enforced; they are upheld by mutual agreement among the social actors involved, or by relations of power and authority between them" (1999:238).

resources, and is therefore a key factor determining vulnerability. For example, those with insufficient access to land will, if they have the available labour within the household, rent or borrow plots of land from other landowners in the villages. However, an agreement is often informal and verbal, leaving sharecroppers or tenants open to exploitation by landowners. Land permits also divide villagers into those that can access Government subsidies and credit facilities and those that can not. However, villagers with the most access to land (in Walamatiara) are located furthest away from the Nakkala, the centre of commercial activity. They are vulnerable to exploitation by middlemen if they are unable to transport their produce to the market. The vulnerability of land-poor villagers who have had to borrow or rent land from landowners in Walamatiara because they do not have enough land of their own is therefore compounded by transport problems (see Plate 34).

Access to basic needs such as electricity and clean drinking water seems to depend largely on patronage (negative social capital) leaving those households without political patrons more vulnerable, and dependent on those households that can afford to sink a well. Lack of access to water is a serious problem for rural farmers. The few households that have access to an agricultural well, pump and motor are able to make use of irrigation. The rest have to rely on rain, and in the dry season many households are forced to engage in other activities such as mining and logging. The effects of malaria on livelihoods illustrates the importance of social capital. Generally you cannot tell who is going to fall ill with malaria, but the extent to which an affected household has the time to recover

without losing any assets (such as *brinjal* cultivation) is dependent on the assistance they receive from social networks (see Case Study 5).

Any research and development project that claims to encompass a participatory approach with an emphasis on indigenous knowledge research must take into account issues of access, particularly if development is to alleviate poverty and empower poor people. Definite attempts are being made by stakeholders in Moneragala (such as the Department of Agriculture) to promote co-operation by building on social capital. For example, in one of the villages a household was chosen by a donor agency to run a model farm. The head of the household, was given Rs80,000 for irrigation equipment. He regularly receives instruction as to what he should be cultivating and is in close contact with the Department of Agriculture in Moneragala. He also received aid to build an agricultural well and was given a pump from previous development schemes and is considered by regional officials to be hardworking and trustworthy. Thus, the same villager is a beneficiary of another UNDP funded project aimed at widening marketing networks. He will sell his produce directly to companies in Colombo and when their orders increase, he will *choose* other farmers he trusts to supply him with produce. The idea is for sustainable groups to form based on networks of trust. Other projects, widespread across Moneragala, attempt to empower rural women by encouraging them to form organisations. For example, the Agricultural Department recognises that development in Moneragala is generally biased towards males.[11] Atapattu (1997) notes:

"About 93 per cent of women are engaged in agriculture and related work in the District...Farm women are not invited to many training sessions because it is

[11] Although this is a national, indeed, a global problem.

Plate 34

Fig.34.1: Three-wheeler used to transport produce such as *brinjal* from gardens along Mediriya road

Fig.34.2: The produce, collected from farms and traders at Nakkala junction, is taken to market by lorry

Case Study 5

Household 36

Gnanawathi came to Walamatiara from Galle twenty years ago with her husband, Wasantha. She worked for many years in a textile factory in Galle and had no agricultural experience. Believing that they could secure a better living from farming, Wasantha procured a permit for two acres, on land belonging to a man who lives in Kandy. Gnanawathi takes care of her six-year-old grandson. They have few possessions, living in a crumbling wattle and daub hut with a tile and thatch roof. There is no toilet and she uses water from personal wells belonging to neighbours. Income is gained from the intercropping of cash crops such as *brinjal* and chilli with an acre of rubber she has recently planted. Gnanawathi also carries out labouring activities at least twice a week on the lands of two neighbours for which she receives Rs125 a day. She is particularly vulnerable from ill health and dwindling social networks. Gnanawathi's grandson suffered from a long-term illness during his infancy leaving her emotionally and financially drained. Her situation was aggravated further by the death of her sister's son and daughter. Gnanawathi is frequently struck by illness leaving her unable to labour or maintain her own garden, both of which are essential sources of food and income. The networks and people that Gnanawathi could rely on have diminished over the years as family members have left the village after marriage or to look for work. Access to benefits is limited which she believes is due to her 'outsider' status. Despite, what she considers to be, the obvious signs of her poverty, Gnanawathi was awarded only Rs200 Samurdhi benefit although 'wealthier' households have received Rs500. When appointed welfare officers distributed roof tiles, Gnanawathi only received 350 tiles, enough to cover half the roof. She feels powerless to complain.

> assumed that the men will relate the information and give demonstrations to their wives... Sometimes women are invited but male domination in discussions obstructs women from effective participation in the absence of a planned effort to give them a chance... this occurs amongst rural women despite the fact that the first female Prime Minister in the World was elected in Sri Lanka... and one of the five members of parliament for the District is a woman"

A number of programmes have been established,[12] where women's groups are given small-scale grinding mills which they use to grind spices, which they packet and sell. The Deputy Director of the Agricultural Department described these women's groups as "very active, self-developed [and] self-built". Another programme in the District (largely involving women) focuses on establishing Arecanut nurseries. The Agriculture Department pays the women's groups to nurture the plants (Rs1 per plant), which are then used in soil conservation projects. Each nursery averages about 5,000 plants (dependent on whether there is land available) and so the women earn Rs5000 a year.

However, while Sri Lanka is well known for informal reciprocal strategies such as *attam* and *shramadana*, Leach *et al.* warn that caution is needed before assuming that 'introduced' organisations will be able to replicate the assumed success of indigenous systems (1999:240). For example, they state:

> "Many of these [indigenous] institutions are informal and consist more in the regularized practices of particular groups of people than in any fixed set of rules; as such they are also dynamic, changing over time as social actors alter their behaviour to suit new social, political or ecological circumstances. Introduced, formal organizations may miss – or reduce – this flexibility" (ibid).

Another significant point to make here is that ideas surrounding social capital, notably empowerment through the sustainable development of networks of trust

[12] One was set up in Mediriya after I left the field although I was unaware of any women's group.

and cooperation, is often dependent on the understanding that a distinct 'community' already exists. Notions of the community working together to create a better future are essentially problematic in Sri Lanka. Stirrat points out the:

> "Remarkable persistence of the 'village community' in perceptions of South Asian society. Invented in the 19th century by such writers as Maine, Baden Powell and Phear, the idea of the 'village community' is still for many consultants the basic means of understanding rural south Asia. Thus to take just one example, many forestry projects have been designed on the basis that there are social entities called 'villages' which are homogenous cohesive wholes, free internally of conflict and of divisions based on power distinctions or property ownership. The work of contemporary historians, sociologists, anthropologists and political scientists is ignored in a picture of the world which juxtaposes 'them' and 'us', the past and present, tradition and modernity, culture and rationality" (2000:40).

Cleaver notes that "ideas about local institutions are often based on problematic notions of community. The community in participatory approaches to development is often seen as a natural social entity characterized by solidaristic relations" (2001:44). However, at the local level there are many organisations although most, especially rural development organisations exist in name only. Once, I asked a respected elder of the village, who was complaining of the lack of extension services, why he did not try to revive the Rural Development Organisation. He told me that he had tried before but for various reasons, one being that he was a retired civil servant, the villagers were suspicious of his motives (for wanting to lead the organisation) and refused to attend. Perhaps we should examine the notion of 'community' for as Cleaver points out, "Discourses of participation are strongly influenced by...theories that suggest that institutions help to formalise mutual expectations of cooperative behaviour [and] allow the exercise of sanctions for non-cooperation..." (ibid:39).

Community Co-operation?

Some months into fieldwork, tales of jealousy, rivalry and suspicion arose in the villages of Mediriya, Therrapahuwa and Walamatiara. I was told that I was lucky to be a guest in the village, as I would not have to deal with the antagonism (I was also told that this would change if I decided to settle there). Although villagers could be mobilised to work together through *Shramadana* to clear the weeds from the path to the temple[13] and to form compulsory *Samurdhi* saving groups, there seemed to be very little unity, no feeling that this was a 'community' in the naïve development sense (e.g. harmonious). Many villagers in Mediriya and Therrapahuwa were connected through kin networks but, again, there seemed to be little in the way of the 'tight-knit' relationships I had expected to find in a rural area.

Cleaver warns that developers are good at expounding the 'myth' that communities only need mobilisation through institutions and they are capable of development (ibid:45). However, in reality 'the community' is a site "of both solidarity and conflict, shifting alliances, power and social structures" (ibid:44). In rural Sri Lanka, the idea of a harmonious, traditional community has been recreated for development as well as nationalistic reasons and this has become one of the sources of benefits. As Woost points out:

> "...many villagers had begun to use development discourse [their own notions of community] in their own day-to-day struggle for position vis-à-vis the state and their fellow villagers. In a practical sense, they had become keenly aware that the discourse of development was a source of empowerment" (1993:509).[14]

[13] Although it should be noted that people attending *shramadana* days organised to clear the temple path, was considerably less when the 'bad' monks were based at the temple. After the 'good' Monastery monks replaced them, enthusiasm for *shramadana* swelled.

[14] See also Chambers *et al.*, 1989.

In reality, a deeper engagement with the market and politics over the past fifty years has broken down the 'rural community', which had based most of its social relationships on rules of kinship (Brow, 1988).

Before any project embarks on an 'empowering' process, it is necessary to know about and understand at least some of the hierarchical relationships that may exist in a community. It has been suggested, at the national and international level, that in South Asia levels of inequality are accepted to the extent where, "less powerful members of an organization expect and accept that power is distributed unequally" (Hofstede,1991 quoted in Hailey, 2001:96). The importance of 'ascription' in South Asian societies has also been noted, particularly "the extent to which position and power is ascribed by virtue of birth, kinship, education, networks and connections" (Trompenaars, 1993 quoted in Hailey, 2001:96). Hierarchical relations may even be valued. Brow explains how up until the 1950s, "the idea of hierarchy was deeply deposited in a cultural tradition that stretched back more than 2000 years, and rules of kinship still effectively governed social interaction within the villages" (1988:314). Attempts to empower through participation may benefit some more than others. For example, Hailey highlights how, "the nature of group dynamics...suggests that power often lies in the hands of the most articulate or politically adept" (2001:94).

At the village level, Brow (1988) emphasises how the nature of factionalism and competition has changed over the decades in line with increasing government intervention and the rise of paternalism. In addition, Gunasekara explains how

party competition has led to the demise of village leadership and warns against participatory development that does not take this into account (1994:2). She emphasizes how the "inability to foster collective action" in communities has been largely responsible for the demise of rural organisations in Sri Lanka. Likewise, she warns against failing to distinguish between power and leadership, stating that: "power holders need not always be leaders" (ibid: 2,8). Brow highlights an interesting point when he states that:

> "Formerly, village leaders had been men whose demonstrable influence within the village, usually based on their prominence in agriculture, commended them to external authorities. Now it was increasingly men with access to politicians of the governing party who exercised power within the village" (1988: 315).

In the villages, there were many rivalries and much suspicion, which became evident in many forms from gossip to sabotage or indirect accusations of witchcraft. In Walamatiara, the villagers appeared to be unified to a certain extent because they all suffered from what one villager described as 'step-motherly' treatment by the authorities. Walamatiara residents, located further down the road from Mediriya, lacked access to electricity, water, transport and a decent road. One elder recounted his views on why there was no 'community' in rural villages:

> *The unity isn't there. After independence political parties broke down the unity in society as a whole...with every election the division is widening...there are elections every four to five years. Village councils and urban councils...the elections keep widening the division. Before, the caste divisions were not so clear cut...people would get together...caste did not affect communal activities...Also the introduction of scientific methods in rural areas especially agriculture has broken unity. With tractors and chemicals...they can do the work of thirty to forty people in a day. Collective work is not necessary not only here but all over the Island.*

Vitebsky highlights how, in Sri Lanka, "land, labour and capital [have] become precious resources to be fought for [and] access to all three factors is becoming ever more related to the cultivation of political connections" (1992:169). He notes that:

> "Today, especially for the younger generation, acquisition of material wealth and power necessarily depends on the ability to muscle in on government subsidies, development grants and access to the local MP. The only path to these is through active work for the heavily politicised village societies" (ibid:171).

When the project team first visited Mediriya to carry out the Participatory Rural Appraisal, we called upon one house where the male head introduced himself as the village leader. At the time I accepted this but, after I had been in the village a few months, I had not seen this man around the village nor at any functions, I began to wonder if he actually was the village leader. I never found out what his role in the village was, although I did see him once at a temple society meeting. I suspect that on our arrival he had anticipated that the team might bring benefits to the village and so had used a discourse of development, which may have implied that, as village leader, he should have a role in the project. Even more surprising (as I carried out further investigations) was that there was not really a village 'leader' but that the man with the most 'power', that is the man who had close links with the local MP (see Plate 35), was also the man who I had originally thought to be the poorest in the village.

Living with his wife and three children in a wattle and daub house on 'middle-class' land in Walamatiara,[15] Wickremesinghe had no cultivation to speak of and his main source of income seemed to be derived from a tiny stall set up

[15] The land belonged to an absent landowner. There is little information about this man.

next to the bus stop (although he also bought and sold other fruit and vegetables). As the months passed I learnt more of Wickremesinghe. He was a loud, brash, manipulative man disliked by most villagers, but by forging links with local politicians and securing leadership of local organisations such as the Samurdhi society and rural development organisation he had gained some form of power. He occupied no formal office in the villages but exercised power over villagers by securing development contracts such as the sinking of wells, distribution of roof tiles or building of a community hall. National and regional efforts to assist the rural poor in the villages were diverted by this man for his and his family's benefits. The wells were poorly built, the roof tiles unequally distributed so that many did not receive an adequate share and the money for the community hall 'mysteriously' vanished. In effect, the most vulnerable in the villages were discriminated against as they were forced to depend on him.

Wickremesinghe was not challenged by the villagers because, as one farmer pointed out, there was nothing they could do as he had close links with the MP. The MP was never blamed for Wickremesinge's actions although it did seem by the end of my fieldwork that his days were numbered. Villagers had virtually disbanded the Rural Development Society. They did not trust the leaders and did not turn up to meetings although the organisation continued to be cited by villagers when they listed associations in which they were members. Wickremesinghe was also dislodged from the Samurdhi society by the regional

Plate 35

Fig.35.1: The Minister for Social Services arrives in Mediriya to formally open the new Samurdhi Road.

Fig. 35.2: The village monk invokes the blessings of the triple gem. This platform was hastily built the week before. The corrugated iron came from the Funeral Aid Society whilst the chairs and table were acquired from various houses nearby. A group of women (including the researcher) got together the day before to cut the "party colour" strips out of polythene.

authorities (outsiders)[16] with charges of corruption and I believe the MP's entourage was trying to distance themselves from him. Nevertheless, Wickremesinghe's actions does highlight the underlying power relations that can exist in a village setting, which needs to be understood if participation and empowerment are to have relevance and to understand why there may be no obvious signs of resistance to power. Brow believes that, "the system of political parties...serves to confine resistance within officially acceptable channels"(1988:323).

It may also be useful to consider another aspect of the knowledge/power equation, which is related to the categorisation and privileging of specific 'knowledges'. As Cheater points out:

> "One vexed question concerns what, exactly, we may be studying when attempting to investigate the relations between what, in the past, have been conceptualised in good binary fashion as dichotomised 'knowledges', often implying a global versus local split. I suspect that such classifications tell us less about the 'knowledges' in question than about the epistemological assumptions of the authors concerned. The problem, as I see it, is who gets to define 'knowledge'. And that, in turn, is partly an issue of power" (1995:121).

During my own fieldwork I came across various circumstances, which, for me, raised further questions about the sustainable, participatory development process in Sri Lanka. For example, the district extension officer or, in one case, a mobile unit from the Department of Agriculture in Kandy, would visit the village and expound the latest ideas on environmentally sustainable methods of farming, especially in relation to paddy and *brinjal* cultivation. On the one hand

[16] Although Wickremesinghe did not intend to go without a fight and I was witness to a 'slanging' match between him and the visiting (heavily pregnant) Samurdhi officer. The Samurdhi officer emerged from the argument triumphant and, unable to understand everything that had been said, I was told by my neighbour that he has decided to make a run for it just as his apparent underground links to JVP terrorism (although there is no evidence for this) were to be outed for public consumption. The Samurdhi officer was an outsider.

we have the Sri Lankan 'outsiders' such as extension officers and officials who are attempting to improve farmers lives by encouraging them to adapt more sustainable practices.[17] However, they are trying to expound current international 'environmentally friendly' practices to an audience that has been 'trained' to view development or help in a paternal, patron/client fashion, i.e. you make the compost and we'll use it.

There also seems to be a distinct lack of understanding (or caring?), on the part of 'outsiders', of the choices local people have to make. Farmers are well aware of the problems that chemical fertilisers and pesticides have on cultivation but they do not have the time or resources to make enough compost to cover acres of *brinjal*. Certainly the vast fluctuation of *brinjal* prices, which is only high when there is not any *brinjal* would dissuade anyone from making such an effort. Thus, there is a need for indigenous knowledge to be included in the development process. However, if farmers try and inform extension workers will this 'disempower' them? Local farmers were also aware of the development discourse, which labels farmers that do not do what they are told is good practice as 'lazy' or 'backward' and used this language to describe the local situation to me even though it was patently not true. This led me to ponder over the ways in which the researcher can untangle development discourse from the reality of everyday life? Sillitoe highlights the problems of trying to represent the diverse nature of knowledge within a village stating:

> "Indigenous knowledge research has to address the issue of whose knowledge it is going to privilege; can it represent everyone's knowledge, and, if so, what is the intellectual status of this all-

[17] Although, ironically, I never saw the Department of Agriculture's 'model farmer' use anything but chemical fertiliser on his cultivation.

encompassing knowledge? The privileging of some knowledge over others will extend a degree of power to those who hold that knowledge; alternatively making it widely known may undermine the position of its holders" (1998:233).

Nevertheless, Leach *et al.* (1999) point out that 'intervening agencies' are also actors within the "complex nexus of multilayered, institutional dynamics" and suggest that such actors also reflect critically on their own roles.

The Researcher: Power and Knowledge

Discussions on power relations must also involve the role of the researcher including the anthropologist for as Belshaw points out:

> "Anthropologists, whether they like it or not, are working in the context of power and have little chance of improving man's lot except through influencing directly or through the force of ideas the uses to which power is put. The option for this kind of solution leads to the probability that power will corrupt and that social science will be drawn into the corruption. Yet, unless social scientists take the risk and prepare themselves for the consequences, they will lose the right, the privilege, and the chance of being relevant" (1976:257).

However, there is also a dilemma over the extent to which researchers should involve themselves in the power plays of other communities. Another problem lies with the power inherent within the interpreters of knowledge, especially indigenous ways of knowing. As Long points out:

> "...The knowledge with which people operate in everyday life is essentially hybrid and flexible. [However] it is important to re-emphasize here that, although it is possible analytically to interpret knowledge as constructed out of various discursive elements, rural people themselves may not actually conceptualise their life worlds in this manner" (1992:168).

Indeed, by 'reformulating' indigenous knowledge into development language for the benefit of 'outsiders', do we risk harming the 'empowering' process by presenting 'our' interpretation of the indigenous voice?

Thrupp raises further questions in relation to the incorporation of indigenous knowledge in development projects when she asks:

> "In order to legitimise such knowledge for the people, is it necessary for western scientists to measure and "scientise" this knowledge? And, is it appropriate for scientists to view this knowledge as an untapped mine to be extracted and used?" (1989:14).

She argues that an 'extractive' approach, where indigenous knowledge is 'packaged' into the models of western scientists, is in danger of distorting knowledge (ibid). But is it wrong to try and communicate indigenous knowledge to scientists in a format they can relate to? The natural resources Ph.D. in the rubber-intercropping project also made use of WinAKT (Agroforestry Knowledge Toolkit), which can be described as a computer knowledge base or 'expert' system (or even an artificial intelligence system).[18] The underlying principles of knowledge bases, as Purcell points out, "is specifically to refine the cognitive methodology applied to decision-making" (1998:266). That is, formally representing 'knowledge'. Software such as WinAKT,[19] generally allows a researcher to target a particular aspect of agroforestry (see Dixon *et al.*,1999). In our project the focus was on rubber and intercrops with a specific hypothesis that stated farmers had their own knowledge which may differ depending on whether they were 'intercroppers' or 'monocroppers' and from which region they came.

WinAKT aims to facilitate interdisciplinary communication and include local knowledge in the development process. Yet, it may face epistemological and ethical problems, not least of which is the fact that "proponents... assume a

[18] WinAKT was used by the natural scientist Ph.D. student to analyse rubber-intercropping data.
[19] It should be noted that knowledge bases such as WinAKT are constantly re-evaluated and updated to keep up with the demands of current users (Dixon *et al.*, 1999).

significant role for science" when they suggest that scientists can focus their research on areas of agroforestry where indigenous knowledge is believed to be weak (Barr and Sillitoe, 2000:182). For example, the rubber-intercropping project was interested in understanding local knowledge but it also wanted to locate gaps in this knowledge with the aim of filling in this gap through scientific research. There is also little room for social context, although this shortcoming has been recognised by the developers of the software (Dixon *et al.* 1999). Barr and Sillitoe (2000) also suggest that there is a whole dimension of tacit knowledge, not easily articulated, which will be difficult to 'elicit' (ibid). Furthermore by combining 'common knowledge'[20] with knowledge that is largely personal and based on experience, under the heading of 'local technical/ecological knowledge', there is a danger that such knowledge will be represented as fixed and static rather than dynamic and innovative (ibid).

Can it be considered as stealing if local knowledge is 'westernised' (e.g. the traditional mixing of crops and trees tested and reformulated by scientists as 'agroforestry systems') and then transferred or 'sold' back to farmers? (ibid:20). Such a view elevates the problems of development discourse in which the researcher/developer is implicated, especially in the way they write about, speak of and understand development. Hymes invites us to query, "Who is the problem to whom? Whom does one's knowledge help? What responsibility must one take for the outcome of one's work?" (1974:52). Such questions are important if the researcher (including myself), is to guard against naïve

[20] That which it assumes a community shares (ibid).

assumptions that they work in development but have nothing to do with power and all its associated problems.

Such insights raise questions not only of production (of ethnography/ies) and reading, but also the issues of representation. Turner believes that an approach where the anthropologist is considered as an 'embodied' participant[21] in the research process leads to a shift from "the study of society and culture to an examination of the processes at work in everyday experience and interaction" (2000:53). He notes that by observing the anthropologist as an embodied participant the anthropologist's own experiences and all the associated problems are considered as a serious object of analysis (ibid:55).

From my own point of view I have always been concerned about "where my loyalties should lie". As an anthropology student, working in an applied field and with people from other disciplines and cultures I faced the problem of trying to please people with differing wants and needs. Schönhuth notes that "in applying a participatory methodology, the anthropologist faces a "which power do I want to serve" dilemma" (2002:151). Turner goes on to explain that it is now widely accepted that anthropologists are not detached observers and must be seen as an "active, situated, participant in the construction of accounts and representations" (2000:51). Therefore he suggests that: "These [ethnographic] constructed through the use of techniques that include omissions and rhetoric" (ibid). Clifford and Marcus advocate that: "Even the best ethnographic texts – serious, true fictions – are systems, or economies, of truth" (1986:7). In relation

[21] Turner describes embodiment as "the shift from seeing culture as principally located in people's mind in concepts and values to a perspective on culture as the embodied and enacted result of continually coming to terms with the world in which one lives" (2000:53).

accounts be acknowledged as partial fictions[22] because they have been actively to development, Crush (1995) questions what written texts do not say. He believes that the primary purpose of the text is to persuade the reader of the 'expertise' of the author(s). Uphoff notes:

> "Even when we know that our understanding is imprecise or that relationships are contingent, the language we use for the sake of brevity commonly obscures this, asserting more certainty than is warranted. Many misunderstandings and disputes stem from overstatements that fail to reflect our uncertain state of knowledge" (1996:325).

However, he also warns that that while we should seek to remedy our own uncertainties we have to bear in mind that there are limits to what can be known.

Conclusion

Development embraces the ideology of empowering the rural poor. This chapter has examined some of the issues surrounding power, looking at the significance of knowledge within the prevailing practice of promoting co-operation and unity through organisations. This has been particularly difficult in Sri Lanka, where, historically, village organisations can serve as a stepping stone for those seeking political connections. It will be interesting to see if development's aim of empowering the poor through collective action will be able to overcome partisan politics and corruption. Yet, we also need to seriously consider the role of the researcher within the process of development. Henkel and Stirrat offer a critique of the 'altruistic' nature of current development aims:

[22] Asad argues that "imperialising power has made itself felt in and through many kinds of writing, not least the kind we call 'fiction'"(1994:9). The term 'fiction' has been used in relation to and recognition of the style of writing that is now associated with ethnographic studies. Turner links the ideas surrounding texts as fiction to the recognition by anthropologists that all knowledge and perspectives are inherently partial and subjective. He states, "Implicit in this point is a critique of the privilege of objectivity and scientific professionalism and the suggestion that all perspectives, while unique, cannot be seen to be inherently inferior or superior" (2000:51).

> "...The question that arises with regard to empowerment is not so much 'how much' are people empowered but rather 'for what' are they empowered. And in the case of many if not all participatory projects it seems evident that what people are 'empowered to do' is take part in the modern sector of 'developing' societies" (2001:182).

Crush also recommends that we examine the purpose of development texts within a wider field of politics and power. He states:

> "Ideas about development do not arise in a social, institutional or literary vacuum. They are rather assembled within a vast hierarchical apparatus of knowledge and consumption, sometimes known...as the 'development industry'. This industry is itself implicated in the operation of networks of power and domination that, in the twentieth century, have come to encompass the entire globe" (ibid:5).

However, we can evoke Uphoff's (1996) evaluation of Hardin's (1968) 'Tragedy of the Commons' which highlighted the inherent logic of the commons where rational individuals seek to maximise their gain (tragedy occurs when everyone seeks to accumulate more than their fair share of resources from the common while paying less than their fair share of the total costs).[23] Uphoff believes that Hardin's ideas have, "...some validity, and [it is] valuable for having pointed out how individual self-interest can undermine the effectiveness of voluntary organisations or community natural resource management" (p.327). Nevertheless, using a 'both-and' and 'either-or' way of thinking[24] Uphoff

---

[23] As Hardin pointed out: "Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all" (1968:1244).

[24] Uphoff highlights the changes that took place amongst farmers in Gal Oya over water shortages once they had started 'valuing' the well-being of others. He states: "The change...could be made more comprehensible by exploring a distinction now used widely in social science – between zero-sum and positive-sum alternatives, with negative-sum outcomes as a third possibility...In a zero-sum situation the total net value is not changed, only redistributed, as the gains of some persons equal other persons' losses. In positive-sum situations, by contrast, some can gain without others' losing (or without their losing as much as others gain), so that total welfare is increased. The opposite is a negative-sum situation where everyone loses...once farmers started valuing others' well-being, in addition to their own, many new possibilities emerged, even when there was a smaller (negative-sum) water supply". (1996:284-288).

believes that we should not have to choose between individualism and co-operation claiming that:

> "Though they may be opposed to one another in practice they can be linked synergistically so that each value complements and enhances the other, which is also true for self interest and altruism... in Gal Oya, individuals benefited from co-operation and generous behaviour enhanced their economic and social income" (ibid:327).

In Moneragala, agencies such as the Department of Agriculture have embraced participatory ideas which highlight the importance of indigenous knowledge and involving local people in their own development. There has been a concerted effort in the District to promote sustainable development by encouraging people to build on social capital (with the idea that people will work together to solve local problems). However, there are contradictions; while few believe the nationalist rhetoric of the united, harmonious community, many agencies are locked into this way of thinking because of the structure of politics and thus it is inherently difficult to act on issues of power and inequality.

How can an examination of power inform the rubber-intercropping project? For a start, it can inform our understanding of inequality. Increasing the yield of banana during the immature phase of rubber could boost income-earning opportunities of the rural poor but 'poverty' has many faces. We need to examine how people interact, negotiate and form relationships both in the village and with external agencies, in order to survive. However, as Wallman points out, "theoretical models of development deal with one side of the development coin at a time [but] in practical terms people sense that they stand to lose as well as gain" (1977:13). At this stage it may be prudent to take note of Long who suggests that: "Someone having power or knowledge does not

entail that others are without". He believes that the, "main task for analysis, then, is to identify and characterise differing actor strategies and rationales, the conditions under which they arise, there viability or effectiveness for solving specific problems and their structural outcomes" (1992b:27).

6

Participatory Development

This chapter is devoted to a discussion of the research process in relation to current concerns with participatory development. In this way, as well as a 'micro' ethnographic study of farmer decision-making in the context of village life, I also attempted to gain a 'macro' perspective by investigating connections between some of the external issues[1] that inform development. To understand the research process it is important to review the fieldwork and methodology. Throughout this thesis I have constantly made reference to the need to examine closely the methods used in the pursuit of development. Thus, current methodological concepts such as participation and all the associated tools like PRA (Participatory Rural Appraisal)[2] will be discussed both in terms of what they represent and how they interact with local reality.

As "ethnographers set out to show how social action in one world makes sense from the point of view of another" (Agar,1986:11), the knowledge I gained whilst in the field should be evaluated alongside the methods I used. Such an examination of some of the choices I made throughout my fieldwork will also highlight the dilemmas I faced in trying to reconcile 'traditional' ethnographic approaches such as participant observation with participatory methodology advocated in development circles. In addition, while Agar notes that: "Ethnography is notorious for dealing with different kinds of strips – observation,

[1] Such as people, institutions and policy.
[2] PRA is closely linked to RRA (Rapid Rural Appraisal). There are others such as PAR (Participatory Action Research) which are beyond the scope of discussion in this thesis.

conversation, interview, archive or literary text" (ibid:36), it should also be recognised that any approach used by the anthropologist is somewhat intuitive, based on what he or she feels is appropriate and least likely to offend local people. This process may be at odds not only with methods favoured by members of other disciplines but also expectations as to what anthropologists should be able to achieve. Yet, Sillitoe points out that:

> "The lone anthropologist, acting like the structuralists' *bricoleur* 'jack-of-all-trades', has striven for a holistic view [but] the discipline can no longer afford to work only in this way without appearing unacceptably amateurish to specialists in the fields on which it inevitably encroaches" (2002:18).

I remember being told by a scientist at the beginning of my fieldwork that the anthropological approach was problematic because, in his view, there was no solid framework and no ultimate goal. I made no progress in changing his mind, despite recounting an analogy, told to me by my supervisor, which likened ethnographic research to chasing a rabbit. If the rabbit veers off into various directions then the ethnographer will inevitably follow. The clash of ideas about how research should be carried out is covered to a certain extent in the Introduction but I will return to some of the key points throughout this chapter especially in relation to the practical realities of conducting research.

Participation – What is it?

As I have already outlined in previous chapters, participatory development emerged out of a reaction against previous development efforts which were primarily devoted to 'top-down' approaches. Indeed, Burkey believes that there has been, "a shift in...approach to development from top down to bottom up, from specialised to integrated, from lecturing to dialogue, from modern

technology to appropriate technology" (1993:xviii). According to Henkel and Stirrat, the term 'participation' historically had religious connotations,[3] which, they believe, has implications for the use of the word today. They state: "Participation, in its early modern usage, meant primarily the participation of man in the infinite grace of God. To point this out is not just a matter of polemics but is also important in understanding the suggestive power of the term in current usage" (2001:173). Francis (2001) highlights how the language of participatory development stems in part from a radical movement in the 1960s, largely driven by NGOs, which provided an 'alternative' vision of development. Nelson and Wright believe that the early models of development used the term participation to indicate that developing countries would become 'participants' in a modern economy (1995:2).

There is a need to examine more closely what is currently meant by participation when it is used in a development context. Unfortunately, such an examination is not straightforward for as Croft and Beresford point out:

> "'Participation' is one of those contentious words like 'community' and 'care' which can seem to mean everything and nothing. There is little agreement about its definition. Even its terminology constantly changes, for example, from 'participation' and 'empowerment' to 'self-advocacy' and 'involvement. 'Participation' generates enthusiasm and hostility in equal proportions. For some it is bankrupt; for others it offers hope" (1996:175).

However, despite a variety of interpretations, participatory development is at least concerned with the increased involvement of local people. It is a 'people-centred' approach, small-scale and local, rather than 'production-centred' which

[3] Although, as Henkel and Stirrat also point out, other meanings of the term 'participation' can be linked to the "bourgeois emancipation in Europe in the eighteenth and nineteenth century" (2001:173).

typically involves large-scale processes that often depend on the 'trickle-down' effect (Wickham,1993:16).

There is a huge body of literature that discuss various aspects of the participatory approach (e.g. Haverkort *et al.*,1991; Anacleti, 1993; Crush, 1995; Pottier,1997; Chambers, 1998; Cooke and Kothari, 2001). Nelson and Wright claim that: "The first aim is for the research to increase participants' understanding of their situation and their ability to use this information in conjunction with their local knowledge of the viability of different political strategies, to generate change for themselves" (1995:51). Jazairy *et al.* believe:

> "Participation is both a means and an end. As an end, it is the fulfilment of a basic need, since people want to be part of the processes that shape their lives. Participation is based on people's awareness of their social entitlements and economic opportunities, which moves them away from dependency to self-reliance and to have a role in decision-making" (1992:342).

Participation aims to broaden development thinking where local people are placed at the centre of activities, becoming a central part of the development process rather than just 'bystanders'. Brunch adds that participation of local people in any development programme will help ensure that local cultural values are respected and that orientation of projects will be towards people's felt needs (1991:29). In this way participation is closely linked with indigenous knowledge research, which highlights that local people often have a detailed understanding of their environment and are accomplished at experimentation and adapting to change (Thrupp, 1989).

The participatory approach and the involvement of local people has gained considerable popularity with donor agencies and those working in development following decades of relatively unsuccessful attempts to help the poor of the world. Indeed, Richards notes:

> "Although rural development programmes of the last 10-15 years have placed the interests of small-scale farmers high on their agenda, the results have so far failed to come up to expectation because of a failure seriously to address question of popular participation in project design and development of new technologies. This results either in inappropriate innovations or in support for the least appropriate group in the farming community" (1985:17; see also Sillitoe, 1998b).

Chambers highlights the massive expansion of the participatory approach over the past twenty years and the potential of participation to bring about change at all institutional levels, from the personal to the policy-related (1998:105). However, he also notes that 'quantity' may have affected 'quality' and that theory and practice are rarely the same (ibid:112).

While the rubber-intercropping project was deemed to be participatory, ideas within the team as to what this should entail, that is, how much should the villagers be involved, differed to a remarkable degree. Croft and Beresford (1996) note that the term participation is sufficiently ambiguous in that a whole continuum of involvement from local decision-making and self-determination to a role that amounts to little more than labouring, can be described as participation. As Nelson and Wright point out: "The ideal definition of participation is only the start to exploring what meanings are attached to it in any context, how they are contested and deployed, and who gains and loses in the process" (1995:1). No one understanding of participation is 'correct' but I will

attempt to explore some of the methodological implications of 'participatory development' as I experienced them within a Sri Lankan setting.

Participatory Rural Appraisal – Learning from Villagers?

Mediriya, the location of the first participatory rural appraisal (PRA) carried out by the team in February of 1999, is where I started working officially for the project.[4] There were seven of us in the team including the rubber extension officer for the district. We spent four days in Moneragala, staying in a guesthouse in the town and visiting Mediriya each day. The itineraries for the PRA, designed by the project leader who had attended a 'participatory' workshop, consisted of village maps, transect mapping, farm sketches, time lines, seasonal calendars, household interviews and institutional analysis'. Wickham describes PRA as a "menu of methodological techniques for learning about rural life and conditions, from, with and by rural people" (1993:iv). He adds that, "PRA emphasises the attitudes and behaviour of the researcher and the methods used during the research process" (ibid), stressing perhaps that there is a level of 'accountability' in development, which may not have been there before.

Participatory Rural Appraisal descended from Rapid Rural Appraisal, which, according to Wickham began in the early 1980s as a reaction against "rural development tourism (brief visits to rural areas by urban based professionals)" and disillusion with previous methodologies such as the structured

[4] Several more PRA-style visits were carried out in Kegalle, Kalutara and Hambantota.

questionnaire (ibid:64).[5] Complementing previous methods of investigation, RRA was a way of helping outsiders to understand what was going on at the local level. The defining character of PRA on the other hand was not in the techniques but in the 'attitudes' brought to the task where investigators seek to avoid biases. PRA was also designed to promote a greater role for local people in the development process while at the same time building on the RRA's aim of understanding indigenous knowledge in a local context. As Croft and Beresford point out:

> "It is important that any concern with participation is clearly *connected* with existing knowledge and experience. It is essential to put participation in its historical and political context. Otherwise its ambiguities and contradictions are likely to remain unexplored and unresolved. Ultimately, discussions of participation which are not grounded in an understanding of its practice and politics are likely to be superficial and unhelpful" (1996:181).

The transect map was intended to provide a better understanding of human activities and the physical environment (Stirling,1999) and involved a cross-section taken through Therraphuwa and Mediriya. Two groups started from either end of the cross-section and met up somewhere along it. Our group, consisting of two natural scientists, a villager and myself, completed the transect in record time, even though we were taken on a detour through the villager's land. I hardly had the time to stop and talk to people who were observing us from their gardens as we raced ahead. Lest I dawdle, one of the natural scientists (also a prospective Ph.D. student) pointed out, without malice, that: "*We are not supposed to be doing social today... tomorrow*".

[5] Although it should be noted that Rapid Rural Appraisal could also be included in the definition of rural development tourism.

Farm sketches and household interviews were carried out, again in groups, over one day. The farm sketches were intended to provide a description, in illustrative form, of how different households managed land resources, the idea being that decision-making at the household level may affect the options open to the whole community (Stirling, 1999). The purpose of the interviews, to be carried out across a wide-range of households, was to learn more about village life in relation to farm resource management and to better understand farmer's perceptions of the problems they face (ibid). The questionnaire was divided up into sections such as socio-economic status (number of individuals living in the household, occupation, materials of the house, access to electricity, membership of societies); access to resources and resource use (land ownership, livestock, home garden, cash crops and other cultivation); access to water; access to health facilities and schools; transport and societies available to villagers.

Deciding on who we should be interviewing was not easy, particularly as we had quickly to devise a method for determining what could constitute a range of poverty for our cross-section of households. Eventually, housing type became the primary indicator and so each group had to try and interview villagers based on whether the dwelling they lived in could be considered 'permanent' (bricks and mortar with tile roof), 'semi-permanent' (wattle and daub with tile roof or some other variation) or 'temporary' (wattle and daub with thatch roof). Through semi-structured interviews we managed to get a little insight into the lives of local people although covering such a wide-range of topics did, as I will highlight a little further on, raise expectations as to the purpose of our visit.

The rest of the PRA activities were carried out in one of the open-plan halls at Mediriya School. Some of the team had driven around the village early on to let people know that we would be at the School in the afternoon and to ask them to come along. There were more men, many of them young adults, than women and also a lot of children as the school was preparing for its annual sports day. Again the team was divided up into two groups with one group working with farmers to produce various calendars covering crop activity, diseases, market prices and cash and resource flow. The aim of this exercise was to identify cycles of activity and to try and establish whether there were any common periods of resource management problems or opportunities (Stirling, 1999). The other group carried out an institutional analysis with villagers who had some position of authority in an organisation in order to identify the most important institutions that also had the respect and confidence of the community. The villagers, who were divided into three groups, also drew up maps. The groups were separated into women, young adult males and older males to see if the resources located on the map would differ according to gender or age related priorities. [6]

What happened?

The PRA exercise in Mediriya only took a few days but I think it is important that I spend a little time detailing what we did because it was at this point that I began to wonder what it was we were actually supposed to be 'doing'. By carrying out this exercise how were we going to assist poor people and in what way was it participatory? This critique of Participatory Rural Appraisal is in no

[6] I am not sure if an analysis of the maps were carried out. On the day, team members seemed to think that the map drawn by the young adult males was the most detailed but this map was subsequently lost in transit. I never saw the map.

way a judgement of the activities of the team which followed as closely as possible the 'correct' (as we understood it) procedures and protocol as laid out in various handbooks (for example, see "Recording and Using Indigenous Knowledge" (1996) by the International Institute of Rural Reconstruction). Methodological tools like RRA and PRA are an attempt to improve on past activities which invariably involved outsiders 'bulldozing' through communities and, with little experience of the region, telling local people what to do (Sillitoe, pers. comm.,1999).[7] However, in my opinion our activities also highlighted widespread concerns with the participatory process.

Talking to various people in the team, it seemed that most thought that such a quick and public study would lead to inaccurate information particularly as the villagers would inevitably think we may provide some aid. The PRA exercises carried out in each district were essentially a way of finding out more about villages that had initially been recommended by the regional rubber development officers. However, as I was able to conduct a detailed study of one of the sites where a PRA was performed it is also useful to question the accuracy of the data we collected. Certainly, the transect walk and the farm sketches were beneficial in providing some idea of what people were actually cultivating in the region. For example, the importance of *brinjal* was clearly evident and there was enough rubber to satisfy project objectives (to uncover indigenous technical knowledge in relation to rubber-intercropping). The seasonal calendar was also a worthwhile exercise as it provided the team with an idea of when local farmers were likely to be more vulnerable to shocks such

[7] Although not necessarily in colonial times.

as drought or low prices. However, it could not take into account that villagers might have strategies in place to counter some of these shocks. Indeed, such a short-term study of village was not able to adequately access sensitive information (nor could it expect to). Obviously one of the reasons is that we were strangers but there are also historical and political reasons that have resulted in a general level of distrust and suspicion that marks village life in Sri Lanka.

Two other aspects of the PRA study, housing materials and local organisations also raised further questions. For example, at the time of the PRA study I suspected that the materials from which a house was constructed probably did not constitute the most accurate indicator of poverty but because of my inexperience I was unable to come up with a better alternative. A long-term study of people's livelihoods in the villages and their access to capital assets revealed that while housing materials could be considered an important indicator of peoples priorities (if there is sufficient money a household will aim to build a brick house), it did not always represent distinct levels of poverty. For example, one young family living in a brick house in Mediriya faced many problems during my stay. The husband and wife had three young children and earned their living from farming. However they did not have enough land to cultivate and they had been unable to secure a tenancy on somebody else's land to grow *brinjal.* Thus, they had no source of weekly income and the female head, who came down with malaria three times in as many months, was forced to labour for family and friends in return for small sums of cash, vegetables and rice. The male head spends most of the dry season mining for gems. The year

before his team and been very successful (lucky, even) and the family had been able to build their brick house. In this year (as in most years) they had been unsuccessful and the family struggled to find the income for food and medical supplies. Furthermore, it turned out that the materials used for a roof was not a useful indicator of poverty as tiles had previously been distributed to most households by a development agency and many villagers prefer having an *illuk* roof, particularly for the household kitchen as it keeps the area cool.

During the final meeting, when one group was asked to give a list of the most important organisations and their functions, the true extent of the political nature of rural institutions was not immediately apparent. Nor did the group members signal that most of the organisations they were describing were largely defunct. As Robinson points out:

> "Should an outsider ask "What groups or societies are there in the village?" A Morapitiyan [Sri Lankan village name] would be likely to reply, "We have the Temple Society, the Burial Society, the Cooperative Society, the Rural Development Society, the Community Development Society, the Youth Society". What he is not likely to add is that none of these 'societies' ever meet and that the last three have no function... the 'Temple Society' and the 'Burial Society' are indigenous groups and have real functions" (1975:86).

The dynamics of institutional interaction and how this may affect the sustainability of development projects did not become clear until some time into my fieldwork. However, while the Sri Lankan team members had experience of the problems of political partisanship across the Island[8] this was not an issue put forward by villagers at the PRA, underlining a major concern. As villagers were no doubt interested in attracting 'aid' to the region they presented the 'best

[8] If outsiders such as myself could not discern such subtleties of village politics should we even be involved in short-term 'PRA-style' processes ?

face' of the village. The sudden appearance of a group of people (our team) who wanted to know all about the 'problems' villagers faced highlighted the danger of raising the expectations of villagers.

To try and counter village expectations during the PRA, the Sri Lankan project leader explained the purpose of our visit to those villagers who came along to the School. He stated that the team could not help with much other than rubber but that we were interested in other problems of the community and we were going to publish a report and they could have a copy. After the final session, he then asked the remaining villagers if they had any questions on rubber cultivation. This was a way of trying to give something back to the villagers for the time they had given us but it also accentuated further concerns about being 'extractive', an anxiety that perhaps most anthropologists have during fieldwork. As Townsend points out: "Many researchers feel unhappy about the extractive approach to research when we go to communities, learn from people, leave and represent our subject to the academic world" (1995: 95).

When it was decided that I should stay in Mediriya which would be a 'farmer-led' site, I initially tried to disassociate myself from the rubber-intercropping project and the team because I was worried that people would think I could provide some financial aid, which, of course, I could not. When I discussed this strategy with the Sri Lankan project leader, he replied that I could do as I saw fit but that the villagers would probably humour me and still think that I may be able to provide some benefits. He was right, for on a number of occasions during the first few months of my fieldwork people enquired as to whether I would be able

to provide financial assistance for various projects. When I did a population survey in the first month, almost half of my informants gave me a lower figure in acres for the amount of land they actually had title to. As my time in the field progressed, it became clear to people that although I was 'wealthy' by their standards, I would not be providing any aid. Yet villagers remained hopeful and when I carried out a poverty assessment some time into my fieldwork, asking villagers for their own perceptions of what it meant to be 'poor', I later found out that people thought that I might be compiling a 'poverty list' and hoped that they would get on it.

I often wondered what exactly the villagers got out of us being there and where did the 'participation', as described by Wickham (1993) or Croft and Beresford (1996) come into it? Could it be that our activities in the village had more in common with Rapid Rural Appraisal but with the 'participatory' added to indicate that villagers were involved to a certain extent? Is it possible to carry out Participatory Rural Appraisal over a few days? Shah warns that: "In most development programmes farmers are informants or at best data collectors. They do not participate in analysing data and taking decisions based on the analysis, nor is their inherent analytical capacity used" (1995:83). Yet as Jazairy *et al.* point out, "participating farmers [should] not only define the problems requiring attention, including non-agronomic problems, but [should also be] active in selecting, applying and evaluating the solutions devised" (1992:356). Indeed, we need to think about the ways in which local people can meaningfully become involved in the data analysis (including the Ph.D. thesis).

Stirrat believes that participatory approaches to development (PRA in particular) represent a "failure to escape the modernist paradigm". He states:

> "...participatory approaches to development encourage the adoption of specific organizational forms and a very specific conception of the person modelled on that dominant in the world. In the end, what PRA practitioners appear to be doing is to empower people to be citizens of the modern state" (2000:39-40).

Chambers notes that the spread of participatory methodology has presented a number of problems where:

> "Methods have been stressed neglecting behaviour and attitudes. Visits have been rushed. Approaches have been standardized and routinised. Activities like mapping meant to be carried out by local people have been undertaken by outsiders. Appraisal has not linked with planning and action. Follow up has been weak. Local people have given their time and nothing has resulted" (1998:112).

He believes that although there has been excellent practice, these misuses have been widespread and raise many questions of principles and ethics (ibid). If the rubber-intercropping team did misuse the concept of participation, and it seems likely that we did to some extent if we take into consideration Chambers comments above, then it was unintentional and probably through a lack of awareness. Nevertheless, aside from other practical concerns such as the difficulty of representing farmers views without distorting their reality (Fernandez, 1991), or overcoming the temptation to keep results in the form of specialist reports inaccessible to farmers (ibid), we need to consider the problems inherent in the concept of participation itself.

The Problem with Participation

Cooke and Kothari maintain that it is not only the practise but also the

'discourse' of participation that "embodies the potential for an unjustified exercise of power" (2001:4). They state:

> "There are acts and processes of participation that we cannot oppose. Some of these such as sharing knowledge and negotiating power relations may be part of everyday life; others, such as political activism or engagement in social movements, are about challenges to day-to-day and structural (for want of a better word) oppressions and injustices within societies. But it is also the case that acts and processes of participation described in the same way- sharing knowledge, negotiating power relationships, political activism and so on- can both conceal and reinforce oppressions and injustices in their various manifestations" (ibid:13).

Mosse believes that 'participatory' projects can influence the way in which villagers define their 'needs' where, "local power hierarchies intersect with project priorities as a multitude of local perspectives and interests struggle to find a place within the authorizing framework of the project" (2001:21). We could ask "what right have outsiders to involve themselves in politics of other communities"? At the same time a major problem is that participatory approaches and methods allow 'outsider' interests to be presented *as* 'local needs' (ibid: 22). That is, developers are able to project their own needs onto the rural communities. Mosse suggests that we do not simply view the situation as one where villagers ask for what they can get but that instead we question how 'local knowledge' rather than "modifying project models, is articulated and structured by them" (ibid).[9] Hailey questions whether concepts of participation, inherently Western, can be translated into a different 'cultural environment' at all (2001:97).

Finding new ways of describing development practice (e.g. participation) cannot hide the reality of institutional demands such as budgeting, time frames,

[9] Although this assumes a very deep understanding of local knowledge in the first place.

deadlines and the need to get on with local officials, governments and donor agencies who all have their own distinct development agendas (Mosse, 2001:24). Indeed, the project team were aware of the need to match project outputs to those originally outlined in the research proposal and which had to be met to ensure the project's success in DFID's eyes. Cleaver notes that while participatory projects emphasise "the desirability of empowerment", projects remain primarily concerned with efficiency (2001:53).

Participation in the Villages

As I mentioned earlier, throughout my time in the field I often wondered what exactly was meant by 'participation'. My idea of what a 'participatory' project should entail, based on the various texts I had read[10] was quite different from what I saw the natural scientists doing in the researcher-led experiment sites and what I actually ended up doing in the farmer-led sites. As far as I could tell, the scientists appeared to be telling the farmers what to do and where the farmers did not follow their instructions (such as keeping the plots free of weeds), they considered offering them a financial inducement.[11] Cooke highlights the problems of getting participation in the community, which, he says, "requires facilitator persuasiveness" (2001:108).[12] However, getting people to agree to participate did not seem to be a problem for the rubber-

[10] Such as Haverkort *et al.*, 1991; Burkey, 1993; Wickham, 1993; Grillo and Stirrat, 1997.
[11] I am not sure if farmers were paid to co-operate but it was discussed at team meetings.
[12] Although Burkey warns that, "correct attitudes must be encouraged from the very start – field staff must be instilled with the idea that they are not to do things for the people, that their job is to help people to do things for themselves" (1993:50).

intercropping project,[13] rather it was maintaining levels of participation that presented difficulties.

I knew of several projects in Mediriya that had come to an untimely end[14] due to a lack of participation related, possibly, to political or financial reasons. The *Hadabima* scheme, where banana suckers, lime and coconut saplings were donated by the Canadian Aids Programme along with a mammoty or crow bar, is one such example that was intended to be sustainable but disintegrated through charges of corruption. Another programme set up through MONDEP [Moneragala Integrated Rural Development programme], and funded by NORAD, was the silkworm project. A factory had been built at Mediriya junction (Nakkala - see Map 6) and villagers were encouraged through loans to cultivate mulberry. Wanigasundara, by highlighting farmers who had benefited from the technology, hailed the sericulture project as a success in 1995. He said:

> "MONDEP is committed to promote income-generating activities, for marginalized farmers, unemployed or under-employed young persons and especially, rural women. This objective does not come as a surprise; but what does cause some wonderment is the manner in which Sericulture has caught on in a predominantly Buddhist community, enjoined by religious teachings to refrain from killing living things. Ethics or ideology seem to have lost out to acute economic need... In Nakkala there are 65 producers, most of whom were sugarcane growers who had cleared hill slopes...producers are assisted in various ways by IRDP. They get assistance for land preparation, for tools and equipment, planting material, construction of sheds, extension services and shade trees for planting. MONDEP chose sericulture for several reasons. It fitted into MONDEP's promotion of crop diversification and intensification. It would wean farmers away from clearing highland for sugarcane or tobacco. This was an environment-friendly crop. Besides,

[13] However, villagers were not keen to be involved in any rubber-related project in Kalutara or Kegalle largely because they were located in a traditional rubber growing area, which had suffered over the years from low rubber prices. In Hambantota, disillusion with a weak extension service hampered attempts to set up research-led experiments. The researcher-led site in Pallekiruwa, Moneragala was deemed to be the most successful.

[14] Although there are documents produced by IRDP, Moneragala, which indicate that a number of projects in Moneragala have been successful (see, for example, Wanigasundara, 1995).

> it could be profitably grown by farmers who were stabilized and grew highland crops...Wijeratne produces 40kgs of cocoons a month, each kilogram containing around 500 cocoons, with 20% silk. The ...silk producing factory buys his cocoons at Rs152 per kilo for cocoons which have 18% silk content. The price slides up with the quantum of silk (1995:64-66).

Yet during my stay in the region the factory at Nakkala closed, suffering financial losses. The one villager in my field site who had participated in this project uprooted the mulberry and applied for a subsidy to grow rubber instead. The failure of this project was largely blamed on the Buddhist belief that all creatures should not be harmed. I think Buddhism may have limited uptake of the technology but the project ultimately failed because of practical and financial reasons. Gnanawathi (Household 36) pointed out that that loans were given of between Rs15,000 –25,000 for one acre but that she had to remove the mulberry because the project was a failure. She says that around 6000 cocoons were needed to produce 1 kilogram.[15] For each kilogram of cocoons the price was Rs180-200 but that was for Grade 1 variety (the higher the silk content the better the grade). Fertiliser was too expensive and there was a problem of disease, which Gnanawathi believes was accelerated by the hot weather. Her husband, Mudalihami, said:

"*The project finished. Even the office is now closed. Even the farmers were reduced in number...Repayment [of the loan] was to be done by way of cocoons but since the worms started dying it was not successful*".

Wanigasundara highlights how after some training, one farmer realised that, "To get high quality cocoons you have to be just right about planting, pruning, feeding, prevention of disease" (ibid). The reality is that many villagers may not have the time, knowledge or energy to put in so much effort for unreliable

[15] There is a discrepancy between the number of cocoons that are needed to make up a kilo. Gnanawathi puts the number at 6000 whilst Wanigasundara states that around 500 cocoons make up a kilo.

financial returns, resulting in substantially decreased participation and subsequent failure.

Moneragala appears to be characterised by a trend, one which seems widespread across Sri Lanka, where a specific crop such as pepper or maize, is endlessly promoted during a particular year by various Government Departments or organisations. They encourage farmers to adopt the technology by promises of high prices and offers of loans or subsidies. Many take up the offer and generally those who adopt the technology early on would get some benefits but inevitably most would fail to make any money as the market becomes flooded with the product and prices drop. Farmers then switch to the new 'product of the year', ceasing to cultivate the previous one and leaving behind unpaid loans. As Moore *et al.* point out: "Effective non-bank rural credit schemes are very difficult to implement effectively in Sri Lanka because of a succession of official credit schemes over several decades where repayment of loans was rarely enforced" (1995:29).

Gegeo summarizes the problem of sustaining such rural development projects in reference to the Solomon Islands. He states:

> "*Laliru'anga* [diversification or chasing every new business that was introduced] is clearly demonstrated by the experience that villagers go through every couple of years or so in which they lose their rural development projects to failure and are then caught up by new projects introduced from the peri-urban and urban centres. For example, it is common to go to West Kwara' ae (and the same holds true in other regions as well) one year and find everybody actively engaged in running small bakeries. It is not unusual to find that in a village of less than one hundred villagers there may be two or three small bakeries in full operation. In the next village, which has perhaps the same number of persons, there may be four small bakeries in operation. Clearly, there is not enough market demand in poor villages to sustain so many small

bakeries. Returning to the same area a year or so later, therefore, one is likely to find that all the bakeries have collapsed and been abandoned to a new wave of businesses operating in their place, say, trade stores. Two years later, it may be cattle projects. And two years after that, poultry or piggeries. The pattern is so pervasive and so predictable that, as the year draws to a close, villagers agonize over how to keep their businesses from being swept away from failure and the new wave of businesses that the new year will usher in" (1998:302-303).

Such a process must inevitably affect the mindset of people in Sri Lanka who are used to short-term projects which may or may not yield some rewards but are, in the long run, unsustainable. In turn, the concept of 'participation', to which the development world attaches notions of long-term sustainability based on local needs and wants, may be interpreted differently by local people who may only 'participate', to the extent that they are willing and able, to see what immediate rewards may accrue. Furthermore, Cooke outlines the 'Abilene Paradox',[16] which suggests that participatory or 'face-to-face' interaction may actually complicate development programmes as "the participatory process may lead a group to say what it is they think you and everyone else wants to hear, rather than what they truly believe" (2001:111). These experiences serve to highlight the difficulties inherent in participatory collaboration although it should be noted that the involvement of local people in the development process (indigenous knowledge research) sets out to combat such misunderstanding.

[16] Cooke states: " 'The Abilene paradox' is the title of what can only be described as a parable, written by Harvey (1979) about unconscious collusion to produce false agreement. The story quite simply is of a family spending an agreeable afternoon at home in Coleman, Texas, when it is suggested that a trip is made to Abilene. Everyone agrees to go. On returning after a gruelling, uncomfortable four-hour trip, one family member ventures that they hadn't really wanted to go, and had only agreed because everyone else was so enthusiastic about going. At this the family bursts into argument, each member claiming that they hadn't wanted to go either, and had only agreed to keep everyone else happy. The Abilene paradox in organizational terms is "that organizations frequently take actions in contradiction to what they really want to do and therefore defeat the very purposes they are trying to achieve' (Harvey,1979:127). In development terms we can easily substitute 'communities' or 'project teams' for organisations." (2001:108-109).

Jazairy *et al.* emphasize that, "a major strength of participatory development lies in taking advantage of the innate wisdom of the rural poor concerning the environment with which they are intimately familiar" (1992:351).

Sustainable Development through Participation

Maintaining local participation then can be problematic. As Mathur points out: "Sustainability should be the goal of any development effort if it is to have a lasting impact. Many promising projects wither away once donors pull out or the agency responsible ceases its operation" (1997:79). Yet it seems that the problem of participation is even more complicated. On the one hand you have the researcher who is trying to transform a participatory approach, advocated by the development establishment, into a methodology that is suitable and relevant to a local setting. The more sinister side to this picture is that participation may be used as a "cosmetic label, to make whatever is proposed appear good" (Chambers,1995:30). Mosse highlights how; "People's knowledge [can be] used to advance and legitimise the project's own development agenda, or even to negotiate its participatory approach with other stakeholders such as funders, technical consultants, senior management" (2001:22). Participation can also include "a co-opting practice, to mobilize local labour and reduce cost...[where] 'they' (local people) participate in 'our' project" (Chamber, 1995:30).

On the other hand, the concept of participation does not always agree with local reality. For example Chaiken and Fluerets note that programmes often assume that rural people always co-operate with each other (1990:88). Indeed, she believes:"programmes of participatory development will not succeed if they fail

to recognise the constraints which limit participation of local people" (ibid). Mathur makes a valid point when he highlights how the 'community' where people live in perfect harmony (often thought so necessary for participation), does not actually exist (1997:60). He states:

> "Communities are more likely to be a collection of factions with diverse interests each trying to promote interests of its own. Few communities are idealized harmonious and homogenous wholes... Conflicts are not uncommon in rural areas and the people are not all that cooperative. Factionalism is often rampant and inequities abound" (ibid).

Thus, development has come up with projects aimed at conflict management. However, villagers can not only be uncooperative with each other but are often highly sceptical of the benefits proposed by development projects (Gupta,1991 :29). Moreover, a climate of development that has long been based on dependence, such as the patron/client relationship evident in Sri Lanka, may render people "incapable of taking their own decisions, a process integral to participatory development" (Mathur,1997:56).

The point I am making is that while there are problems inherent in the ambiguous nature of 'participation', which leaves it open to interpretation by researchers and developers, the whole conundrum of what participation means is complicated further by local people themselves. What happens if a villager's interpretation of participation is different from yours? Do the villagers have time to participate? Do they even want to? Mathur notes that:

> "The poor in their circumstances... prefer to steer away from participation. The obstacles to participation which they face prove too disheartening for them to move in the desired direction. Therefore unless there is something very vital at stake, they would rather leave the burden to others" (ibid:59).

In the middle somewhere is the notion of 'real' participation that lays the framework for "an empowering process which enables local people to do their own analysis, to take command, to gain in confidence, and to make their own decisions" (Chambers, 1995:30).[17] However, as Chambers points out, "participatory processes are liable to be fragile, vulnerable and damaged by dominating modes of interaction" (1998:117).

Participation or Participant Observation?

In the villages I did not admit that I was part of a development project let alone try and encourage farmer participation in the sense of Burkey's "self reliant participatory development" (1993). As well as trying not to suggest that I could provide any benefits, I was particularly worried that the methodological tools such as games and group work would be a burden to villagers, who always seemed busy or taking a well-earned rest. I also did not want to appear to be any more of a nuisance than I suspected I already was. Working in the fields and asking incessant questions was one thing, requesting that people take time out to take part in some 'participatory' activity was another and I just could not bring myself to do it.

As I have already pointed out, I was located in a designated 'farmer-led' site where I was supposed to observe and question the choices that rubber-growers made with regards to intercropping. Out of the forty households that I worked with, thirty had at least one acre of rubber in some stage of maturity. The actual 'participants' in the project, that is, the ones that the scientists were interested

[17] However, as I have highlighted in this thesis, such a notion of participation is, perhaps, politically naïve.

in, ended up being five households, four of which had applied to the Rubber Development Department, in 1999, to grow rubber. The fifth household had planted rubber a year earlier. Two of the households had expressed an interest in growing banana when the scientists visited and so *kolikuttu* banana suckers were donated by the project. As these households had received something from the project I felt that it was acceptable to ask that they keep a diary,[18] which would, ideally, outline when they had worked on their rubber land and what they did. I was loathe to ask the other three households to do anything mainly because I could not provide much in return and I did not want to have to explain why they had been 'chosen' to be part of a research project without receiving anything at all.

On reflection this was a mistake as I was not being honest and the farmers probably knew anyway as word gets around small villages quickly. Indeed Connerton points out that:

> "Most of what happens in a village during the course of a day will be recounted by somebody before the days ends and these reports will be based on observation or on first-hand accounts. Village gossip is composed of this daily recounting combined with lifelong mutual familiarities" (1989:17).

The whole notion of participation, one where the farmers are an integral part of the development process, was turned on its head by my actions because I just could not see why they would 'participate' in a project that wanted to know what they knew in order to benefit rubber farmers of the future. It was a particularly painful dilemma that continues to worry me to this day. Instead I asked them to help me in my research (*potak liyannava* – to write a book) to learn about

[18] Each farmer participating in the project was asked to log his or her daily activities surrounding the rubber and intercrop cultivation in a diary.

farming. They agreed and in return I would take photographs of family members. However, such an approach is not without its own dilemmas as the problem of 'extraction' is not solved. Golde reminds us of this conundrum when she states:

> "I cannot resist this opportunity to make a plea for the necessity of knowingly building some form of reciprocity into the field worker's role, both to enhance the process of rapport and to minimise concern about the asymmetrical quality of the field worker's relationships. To recognise that a 'quid pro quo' relationship is more easily accepted, more stable and more humanly defensible would reduce much of the researcher's conflict (1986:83).

Yet, it seems that I was more prepared to deal with the problems of trying to build relationships based on reciprocity (rather than extraction) as an 'ethnographer' than as a 'development researcher'. This has subsequently led me to wonder whether I was too short sighted in my own ideas of what participation should entail. I also wonder if I was guilty of viewing development in a patron/client capacity by thinking that we had to offer 'something' in order to get anything in return. However, my actions were also driven by a concern with building long-term relationships (as opposed to short-term 'participatory' interactions) and I had to be careful not to offend or annoy people.

As an ethnographer I relied heavily on traditional anthropological techniques such as participant observation where you learn by doing,[19] interviews and general everyday conversation. Obviously, like most ethnographers I also faced practical and ethical difficulties in carrying out research in the field (and subsequently in writing up). For example, using research assistants in the field also highlighted the practical and ethical implications of collecting data. It was

[19] Although as I had proved on more than one occasion that I was inept in most aspects of daily life, villagers often did not like me helping them in any activities that involved sharp instruments.

difficult to take tape interviews because a lot of the villagers would clam up at the sight of a recorder [20] and a vast majority of my interviews were conducted whilst the farmer was working. I thus had to rely on note-taking with my research assistants helping correct my grammar when I asked questions and to assist with the translation of answers. As my knowledge of Sinhala progressed I began increasingly to notice that Nireka would only give me a few 'snippits' from any conversation. Mr Senanayake on the other hand, would use the interview time to correct the farmers on what he considered to be their inaccurate knowledge whilst imparting his own farming wisdom. As he was a respected elder, villagers would not argue with him. Eventually, when I was able to persuade Mr Senanayake to control his urge to give people advice, villagers would ask him why I needed their knowledge of, for example, preparation of a paddy field, when he could easily give me the answer and save all this time and effort!

One could perhaps question the reliability of data collected but I do believe that over time I was able to understand, to the extent any outsider can, the realities of everyday life in the villages by using a participant-observer approach. Yet as Grills points out: "Although we can attempt to take multiple perspectives into account, and others can share their understanding of this or that aspect of social life, we always make sense of these representations through who we are" (1998:10). Such a notion becomes quite frightening when we realise that: "Our attempts at such activities are littered with the various negotiations, false starts, misgivings, unfortunate alliances, performance anxieties, and other

[20] Invariably there would be a dog nearby who would bark incessantly throughout the interview thereby rendering the tape useless.

complications that reflect field research as an emergent and unpredictable practice" (ibid). In addition, Carrithers notes that:

> "...Anthropological knowledge begins as personal knowledge about particular people in a particular place at a particular time. This might be recognised as a strength, but it is also subject to the objection that, if knowledge is only personal, then it is only your knowledge, and therefore is not necessarily valid for others. This reflects in miniature the larger uncertainty that anthropology is your society's knowledge, not a valid knowledge at all times" (1992:148).

Johannsen highlights how contemporary, post-modernist, experiments in cultural representations are marked by an attempt to "negotiate authority...with their hosts, in part by letting 'their' voices be heard in the ethnographic texts" (1992:74). However, she warns that post-modernist ethnography magnifies the wider problem of "how to achieve as concrete an ethnographic product as possible" (ibid). Nevertheless, while we must recognise that the gathering and portrayal of 'knowledge' is problematic, anthropological methods have a certain amount of reliability precisely because we recognise, "the anguished and messy tangle of contradictions and uncertainties surrounding the interrelations of personal experiences, personal narrative, scientism and professionalism..." (Pratt,1986:29).

Who Participates?

It seems that I am not alone in trying to reconcile a fairly 'traditional' yet post modern training in anthropology with the reality of working in development. Sillitoe highlights how:

> "All anthropologists know how time consuming and painful it can be achieving a sympathetic and informed understanding of another way of life, and the temptation for development personnel, with the political pressures on them to achieve quick results, is that they may turn to anthropologists to tell them what they wish to know, instead of engaging in long-term and expensive enquiries, to encourage and facilitate people

> communicating their own ideas and problems. This may become a problem as the shortcomings of current participatory methods become evident. The methodological implications for anthropology are considerable. There is a danger that we may be manoeuvred into presuming to speak for others. There is a problem of not only representing the knowledge of a community or cultural region (however we struggle to define/fudge it), but also deciding whose voices should be heard, for as the global model seeks to convey, anthropology's continuing stance may be inadequate. We face the contentious issue of deciding whose knowledge should count, whose views should be put forward, for it is unlikely that a scientist, policymaker or whoever will wish to know all shades of opinion" (2002b:132).

I feel that there was an expectation from the rest of the team that I should be using all sorts of participatory 'techniques' during my ethnographic study in order to involve the villagers more fully in the research process. Maybe I should have but, as I explained earlier, I did not. Eventually, I was forced to overcome my instinct not to impose on people or to widely publicise that I was part of a development research project. Towards the end of my fieldwork I had to carry out a number of 'focus group' style sessions in order to contribute to the proposed island-wide survey of livelihoods, based on the DFID supported 'Sustainable Livelihoods Framework'. Kanthi would carry out the bulk of the work with the help of a number of hired assistants but Mediriya was to be the first trial run and I had to come up with some suitable exercise.

I agree with Sillitoe's observation that: "The problems encountered in trying to understand something about others' sociocultural traditions are not to be glossed over in glib methodologies" (ibid:3). At least, I felt, I knew enough about the villages to be able to compensate for any short- comings of the experimental exercises we carried out. Using the categories of capital assets from DFID's 'Sustainable Livelihoods Framework', Kanthi and I carried out a ranking exercise which would incorporate comments on strengths and

weaknesses of available assets (see Appendix 2). This exercise was based on work I had been doing with villagers throughout my research. Burkey notes that the best way of involving people "is to begin with a specific situation about which they know something so that they can contribute to the discussion" (1993:132). I arranged for there to be three meetings, one in Walamatiara, one in Mediriya and one in Therrapahuwa so that people would not have to travel far. I invited as many of the villagers as possible but explained that they did not have to come. Throughout the planning process I was torn between an overwhelming doubt that anybody would turn up and a fear that too many would turn up and the meeting would disintegrate into chaos! Problems occurred at all three meetings, some of which I discuss but it should be noted that there were also a few surprises. I had not experienced the 'focus group' before in my research[21] and did not realise the extent to which such interactions could trigger discussions that would highlight new information or cast doubt on issues I thought I had figured out.

In Walamatiara, Mr Danapala and I decided to hold the meeting at his house a day before Kanthi was due to arrive. I had made a list of assets (based on what I knew from my fieldwork) under each category (see Appendix 2) with spaces left for the villagers to add anything I had missed. I planned for the session to last no more than one and a half-hours so as not to cause too much inconvenience to the villagers. Six villagers turned up which was a good number but, after two hours, when we still had not completed the ranking of financial assets, I realised that I may have overestimated how much we could reasonably

[21] Although I had spent a lot of time in the company of groups of women or men who were working, chatting or bathing when I joined them.

achieve in a short space of time. We stopped there but not before the villagers talked about their feelings with regards to the accessibility of resources. They believed that they received 'step motherly' treatment from the authorities, that is, they had no access to resources (electricity or communal wells) and the road was in a poor state, because they were 'outsiders' and had few connections in the area.[22] The extent to which they felt 'abandoned' had not been as clear when I had talked to individual villagers and so the meeting in this respect was a success.

Kanthi arrived in Moneragala and we organised meetings for Therrapahuwa and Mediriya. There were five participants (from my sample) in Therrapahuwa. A lot of political issues arose (see Appendix 2) which I had some idea of but were confirmed by this meeting. However, a 'heart stopping' moment also occurred when our host told Kanthi that they had a lot of problems but did not want to burden me with them. I saw my entire research efforts over the past year flash before my eyes and this confirmed to a certain extent the implications of my choice to 'play down' the fact that I had been placed in Mediriya to contribute to a research and development project.

In Mediriya, sixteen participants turned up, far too many for one focus group but with only Kanthi and I there to facilitate we were unable to manage sub-groups and consequently the meeting went ahead with everybody talking at once! While a number of interesting issues were raised this 'crowd' did not come close to the recommended small, intermixed groups (IIRR,1996). Typically, there

[22] Apart from Dharamasiri who had been given funds for irrigation equipment (Household 26).

seemed to be one or two dominant speakers, while the rest mostly, quietly agreed. However on some issues (see Appendix 2) there was a marked disagreement between woman and men. For example, with physical assets such as roads, transport facilities, toilets, electricity and water, the men ranked the poor state of the roads as their worst problem whilst the women were more concerned with the lack of wells.

Based on my research into access issues it had become clear that getting loans from friends or associates during a financial crisis was one of the first actions a person would take, with a bank loan being the last resort. However, in this meeting, the bank loan was ranked as the most important whilst getting loans from local people was ranked eighth. What is so puzzling about this information is not so much the fact that people claim to be taking out bank loans (on the whole they are not for reasons outlined in Chapter 4 and 5) but why they would rank a bank loan as being the most important source of financial capital. During several conversations with villagers after the exercise, it was reiterated that bank loans were difficult to get but that it would be *good* to be able to get a loan. Earlier on in my fieldwork I had asked the *Grama Sevaka* what type of development was needed in the region. She answered:

"The village is mainly based on agriculture. Therefore I think farmers should be given facilities to improve agriculture. Most farmers have problems when it comes to taking loans from banks and also buying land because of the lack of capital they have"

Nevertheless, these problems were not highlighted during the session. So, as well as finding this sort of interaction to be quite 'extractive' I also wondered if I was simply 'doing it wrong'! In addition, I was quite concerned about how much

I had influenced the information given by villagers, that is, how they constructed their needs (Mosse,2001:20). Could this small attempt at getting people together for a discussion be considered, in any way, participation? Chambers (1998) notes that 'participation' may be used in a rhetorical sense but it can still open doors to developers and policy makers. However Cleaver warns that in order to appreciate how participation may benefit the poor we also need an understanding "of the institutions of participation and the individuals involved" (2001:54).

The Way Forward?

In this chapter I have attempted to examine the research process, making sense of my experiences and trying to understand the implications of my choices with the help of authors who are familiar with the situations I found myself in. Sillitoe highlights how, "participation is methodologically eclectic, mixing semi-structured interviews with observation, particularly favouring techniques that draw in local people with innovative games, diagramming, mapping exercises, focus group discussion and so on" (2002:6). My concern is how you extend notions of participation to take into account long-term ethnographic fieldwork, where, certainly in my case, I wanted to learn (through participant-observation) by becoming involved in villager's activities as opposed to a scenario where *they* become involved in *my* activities. As Stoll-Kleeman and O'Riordan note, "it is a constant challenge to find the appropriate balance between the level and type of participation needed" (2002:165). Nevertheless, Nolan believes that, "it is through anthropology that we learn the things that aren't revealed by surveys or quick site visits" (2002:26).

I do not want to appear too pessimistic (although, I expect, this is inevitable because agencies in Moneragala are trying hard to incorporate participatory ideas in difficult conditions. Sillitoe (1998, 2002) proposes that the anthropologist become part of the grassroots participatory perspective in development rather than a "frustrated post project critic" (2002:1). However, Jazairy *et al.* point out that:

> "The participatory approach to development can be a delicate matter for an external agent. For one thing, to achieve people's participation is to empower them, a concept with which many are still ill at ease. For another, the situation of the rural poor, in particular, is often characterised by their physical isolation and their alienation from the mainstream of economic and political life... Participation can be a means of moving the rural poor from a state of dependence to one of greater self-reliance, but if it is imposed from the outside there is a danger that it will lead to other forms of dependence-hardly the goal of development" (1992:353).

My concerns about the meanings behind the use of the term 'participation' are justified to a certain extent. After I had left the field, the team invited rubber growers from the villages involved in the project to a workshop/meeting at the Rubber Research Institute in Kalutara. Transport and accommodation were provided but nobody from Mediriya, Therrapahuwa or Walamatiara attended. The reason given was that the meeting was in the middle of the paddy harvest season, an entirely reasonable explanation but as a number of farmers from the other Moneragala (researcher-led) site attended, I wonder if there were other factors at play. Could it be that the villagers were not really actively involved in the project account for the dearth of interest? If so, did it have anything to do with my decision to focus on an 'ethnographer' rather than 'developer' role? Or, was the absence of Mediriya participants at the workshop due to insufficient on-

going interaction with project team members, a gap in communication that could not be filled (due to time constraints) after I had left?

Whatever the reasons, the role of the anthropologist in participatory development should be continually reflected on so that we also may learn. Schönhuth highlights a number of valid points in the following statement:

> "Anthropological research can often be a vehicle for the appropriation - not the protection of - indigenous knowledge... Bridging the gap between observer and observed, and making local people active partners in the research is therefore the request of anthropologists who combine participant observation and participatory research... But there are fundamental inconsistencies between participant observation and participatory research, which have to do with their different traditions. The first, from Malinowski's day onwards, takes indigenous knowledge (IK) as a resource for describing and translating sociocultural reality according to scientific standards. The second takes local knowledge as a resource to act on and change sociocultural reality together with people in a world of domination and unjustified distribution of resources. It is these different traditions that make the combination a difficult task, in which the researcher faces unsuspected dilemmas, and the actors may lose as much as they can win by negotiating with knowledge in a participatory mode" (2002:143-144).

Croft and Beresford believe that we should not reject participation but need to start with a clear idea about the "nature and objectives; where control lies and what opportunities it may offer" (1996:192). Indeed, Nolan suggests that in order for participation to be successful we have to ask ourselves at the planning stage, "What kinds of *activities* will stakeholders participate in? What *kinds of people* will participate? How much *power* will they have?" (2002:161). The future of anthropology, then, is to continue to look for opportunities to work on and improve the overall aim to participate *with* local people in their own development.

8

Conclusions

This thesis began by contemplating the role of anthropology in rural development, particularly in the face of widespread concerns to alleviate poverty and empower the rural poor. By examining the history of development intervention, much of which has largely failed to achieve what it set out to do, I argue that research and development practitioners must make a concerted effort to situate natural resources projects within the wider social and political context.

There is an urgent need for projects to further their understanding of the complex and multifaceted nature of the development process and seriously to address the extent to which they are able to achieve certain objectives. If we do not acknowledge that some aspects of a research or development proposal, (such as local participation), are sometimes difficult to fulfil, we risk placing our integrity and our relationship with those we hope to assist in jeopardy. We may also fail to learn from our mistakes. However, as I highlighted in Chapter 6, popular development concepts like 'sustainability' and 'participation' are sufficiently ambiguous to facilitate a multitude of interpretations. Methodological and epistemological problems occur when local people are not given the chance to present their 'interpretation'.

By taking a more holistic approach to development research, this thesis highlights some of the complex interactions involved and focuses on the many

factors that can influence the project environment. Through extensive ethnographic research in the villages of Mediriya, Therrapahuwa and Walamatiara, I was able to learn more about villagers including their hopes, beliefs and fears. The study of livelihood strategies also contributed to a greater understanding of farmer decision-making, a key aspect of the rubber-intercropping research project. However, while the Sustainable Livelihoods Framework can be an effective methodological tool in highlighting processes at work in the everyday lives of villager's, we need to consider the impact of development interventions on their livelihoods.

Although the Sustainable Livelihoods approach is based on participatory principles (that is, it is 'people-centred'), we must recognise that it is still a product of Western development thinking.[1] While it emphasises access to capital assets in order to outline the 'vulnerability context' of an individual, household or community, it should also examine the role of the 'developer' in the context of knowledge and power. Indeed, notions of participation and sustainability can be used by 'experts' to impose development agendas that are not necessarily responsive to people's needs or even to their own understanding of livelihood problems. Arce (2000) believes that researchers or developers exacerbate unequal power relations because it is they who place a value on capital assets through the Sustainable Livelihoods Framework.

[1] For further discussion, see Arce, A. (2001) "Marketing Expert Notions of Local Life: Development as if People Really Matter?" A paper presented at the Development Studies Association Conference, *Different Poverties, Different Policies*, held September 10-12 2001, Institute for Development Policy and Management, University of Manchester.

By highlighting villager's vulnerability and their ability to access capital assets, what did the rubber-intercropping project hope to achieve? In my study I emphasised a number of problems that affected people's livelihoods strategies which inevitably involved environmental issues as well as socio-economic and political influences. The Island-wide livelihoods survey carried out by the project team also aimed to establish problems with access to capital assets. The project's overall aim was to assist the alleviation of poverty through small-scale realistic improvements to land use by improving the planting density of banana (and therefore the number of bananas that can be sold) in between rows of rubber. Results of the Sustainable Livelihoods survey allowed the project to identify the smallholders likely to adopt and benefit from the rubber intercropping technology. Nevertheless, while rubber is considered a potential long-term source of income in the villages of Mediriya, Therrapahuwa and Walamatiara, particularly if the Government can resolve problems with fluctuating prices, it is unlikely that rubber or increased banana will have a significant impact on the precarious existence of many of the villagers. In this way, the Sustainable Livelihoods framework is in danger of being used to advance a specific agenda (who can use the rubber intercropping technology) to the donor agency funding the research, rather than involving local people and finding out what they need. Arce highlights an important point when he states:

> "It is interesting to note that participatory exercises on capital assets knowledge is used not to improve what local people perceive as important in their livelihood practices, but to reinforce experts' agenda on the resources they consider important for the livelihood of the farmers and the sustainability of their economy and environment" (2000:11).

Arce believes that the Sustainable Livelihoods approach should incorporate the influence of the developer, if it is to avoid the potential hazard of distorting the

understanding people have of development interventions aims to improve livelihoods (ibid). Indeed, we are in danger of imposing developer's or researcher's view of reality which is unlikely to encourage sustainable intervention and more likely to result in failure.

Anthropological Contributions to Rural Development

The bulk of the details that I provided to the natural scientists, were not 'used' in their final report, which highlights an interesting conundrum. Stirrat notes that:

> "While at one level the rationale...is that [development consultants] should have a practical impact, at the same time there is an acceptance that they do not and that they are not expected to...Frequently it appears that they are hired to tell their clients what the clients want to hear, and even more frequently their advice or their findings are ignored. Furthermore, little attempt is made to measure what the impact of consultants work is" (2000:41).

While Stirrat's comments are aimed towards the short-term development consultant, he raises an important question, for me, in terms of my participation in the rubber-intercropping project. Exactly how do anthropologists contribute to the development process? Indeed, trying to understand what anthropology can do, is part of the 'ethnographic unravelling' of the processes of development. As Nolan points out "rather than seeing the project as a series of discrete things, anthropologists will look at it as a developing system, and pay particular attention to the relationships between the various parts, levels and components" (2002:106). What also needs to be considered, of course, is how theoretical reflections actually contribute to development practice. How will it help the rural poor and who is going to listen?

Indigenous Knowledge Research

One significant role that anthropology can play in development is to promote the importance of indigenous knowledge whilst engaging with complexities of competing epistemologies. Understanding the local context is vital for sustainable intervention, particularly with development's concerns to incorporate people's participation in the process. As Sillitoe (1998b) points out it is increasingly being recognised that other people have their own effective 'science' (see Chapter 3). Indigenous Knowledge Research sets out to promote the relevance of this knowledge to development and to facilitate the sharing of ideas between local people and outside researchers or developers.

In Chapter 3, I maintain that villager's knowledge of soil properties influenced decision-making in the home garden and smallholding and was therefore a useful contribution to the rubber-intercropping project, which was particularly interested in mixed cropping. Crucial to this understanding is that such knowledge comes from a wide range of sources and that it cannot 'stand alone'; we have to take other socio-cultural factors into consideration. Indeed Sillitoe (1998b) argues that one of the problems of the ideas surrounding 'indigenous technical knowledge' is that it carries the danger of 'misunderstanding' the local situation by focusing on 'knowledge' of the natural environment whilst 'ignoring' socio-cultural factors that may have influenced this 'knowledge'. Without taking into account the wider context in which indigenous knowledge is embedded, researchers run the risk of being 'extractive', disempowering local people by divorcing them from their knowledge (ibid).

Participatory Development

There have also been wide-ranging critiques of participatory[2] development and the associated methodological tools in recent years, particularly Participatory Rural Appraisal (PRA). Participatory techniques are seeking to combat the short-term nature of past methods in development which were open to much misinterpretation. PRA, building on the advances made by Rapid Rural Appraisal (RRA), not only encourages a greater involvement of local people in the research and development process but also places a heightened emphasis on the role of the researcher in this process and the methods used. As Henkel and Stirrat (2001:179) point out:

> "The PRA approach centres around an institutionalized, communal construction of visual representations of reality, i.e. the construction of graphics such as maps, matrixes, diagrams and calendar. PRA, so its proponents often claims, leads to the ' empowerment' of local people by giving them the means to analyse the problems of their communities on their own terms and a voice vis-à-vis external policy-makers such as politicians and development experts".

Mohan believes that participatory research methods that "alter the power relations in favour of the marginalised" are to be welcomed (2001:158). However, such methods can often reinforce relations of authority between the 'expert' and the 'other' (ibid). For example, in Chapters 4 and 5 I pointed out how politics and power in Sri Lanka are intricately intertwined with knowledge.

The alleviation of poverty has been the main focus of domestic policy in Sri Lanka over the past few decades yet there are fundamental problems in the organisation of rural development, which allows politicians to 'distribute' benefits

[2] See Chapter 6 and Bibliography for a list of author's who have written on this subject.

for votes. In the Introduction I highlighted how villagers are aware of the discourse of development and some are able to engage with it, to varying extents, for their own benefit (Woost, 1993). We must also consider how Buddhist nationalist rhetoric, which espouses idealistic notions of rural development based on a glorious agricultural past featuring 'unity within the community', influences who has control over access to resources. In reality, as Brow (1990) points out, participatory rural development becomes part of a long-running national 'scheme' to assert superiority and authority over others. He states:

> "The images of agrarian life that are projected in contemporary nationalism form part of a hegemonic discourse, in terms of which the dominant classes justify their privilege to themselves and strive to gain the consent of those whom they command by incorporating them within the 'imagined community' of the Sinhala nation" (p.125).

Efforts to achieve sustainable development in Sri Lanka and the means to attain this – through participation – are subverted at the national, regional and local level by a widespread inability at all levels to break away from the patron/client relationship. In Moneragala (as in all of Sri Lanka), the stark reality of past and present attempts at rural development are evident in the way that projects consistently fail to achieve the targeted 'alleviation of poverty', often because the needs of local people are not well understood. Nevertheless, there was considerable potential for greater involvement of local people in the rubber-intercropping research. In the Introduction I outlined how short-term studies were conducted the year before the project started in order to identify the possible socio-economic benefits of intensive rubber-intercropping. Chapter 6 also highlighted how PRA's were carried out in a number of villages in order to

find out more about villagers lives (see Wickham,1993). However, while rubber growers were involved to varying extents in the project, what was to be researched was decided by the researchers rather than the local people, which is at odds with the objectives of participation.

As I point out in this thesis, the danger of misinterpreting the concept of participation can have a knock-on effect for sustainable intervention, particularly if local people expect to 'participate' in projects on a short-term basis in order to accrue immediate benefits (such as credit or tools). In reality the ambiguous nature of the term, 'participation', leaves it open to variable interpretation, raising a number of problems. For example, PRA techniques that emphasise group work may promote a consensual view (closely linked to notions of the harmonious community) which can, as I revealed in Chapter 6, conceal the power plays that exist at the local and regional level (Mohan, 2001). But as Mohan warns we should not see 'communities' as harmonious and treat local 'participants' in a paternalistic fashion, which can intensify power struggles (p159). He also implicates the researcher in the development process stating:

> "...the ethnographer/researcher assumes that people being researched lack the capacity for self analysis and that only s/he can truly 'decode' and 'interpret' reality for them... In much the same way the findings of PRA are translated and interpreted by the researcher, which undermines that value of local knowledge" (ibid:161).

On another level, Mohan warns against assuming that research, which is 'participatory' (i.e. better), will allow the state to understand local needs better and respond in a 'rational' and appropriate manner (ibid:163). In many cases,

political forces will manipulate this new-found 'reciprocal' relationship and political discourse with local people to disempower them (ibid).

Moreover, Henkel and Stirrat (2001:183) believe that rather than empowering local people to participate in their own development, the participatory approach provides development with an opportunity to shift the responsibility for the outcome of the projects away from 'experts' onto the participating people. In essence, developers set themselves up as 'facilitators', distancing themselves from the process they initiate (ibid). They emphasise that while the PRA approach is based on the assumption that there are different versions of 'local reality'. While people must draw their own maps and diagrams, the framework for the methods is set by the PRA documents (2001:180-181). That is, PRA techniques provide a template for what is considered to be 'normal'. Henkel and Stirrat state: "What PRA does through its various supposedly neutral visual techniques is to encourage a particular way of seeing, understanding and representing the world, which derives from the world of the PRA 'expert'" (ibid:182). In this way, participatory projects run the risk of perpetuating what they seek to overcome, development that is unable to address the complexities of local needs. Certainly in the Sri Lankan villages I know, a long history of development failure is related largely to the neglect and lack of understanding of local reality. We also need to consider whether researchers and developers use the concept of participation in a rhetorical fashion in order to gain funds from donor agencies.

The Project: Lessons Learned and Further Questions

There is no doubt that development seeks 'quick' and 'effective' solutions to many of the World's problems. Yet, my experience (and I think this is true of many anthropologists working in development) is that I had only just started to disentangle the complexity of villager's decision-making and to understand various issues that needed to be investigated relating to politics, power and knowledge, when my fieldwork came to an end. Sillitoe (1998b) points out that learning and interpreting knowledge, including 'tacit' knowledge requires time. On one occasion, near the end of my fieldwork, I had been asked for 'everything' that I had on the five households who were considered 'part of the project'. I took this literally and sent all my files, which included diary entries, interviews, details of events in which they were involved and all activities that I had participated in. It was not long before the project leader got back to me stating that she was not sure how all this local 'detail' could help the project. Sillitoe (1998b) recognises that the localised relevance of knowledge is a significant barrier to its incorporation.

The project leader sought to help me by providing topics that the project was interested in, such as how often the villagers visited their rubber land to carry out some work (weeding, planting of intercrops etc.). This requirement highlighted a number of intriguing issues. Firstly, most of the information required was in the files but I mistakenly presented the information in a way that was not easily accessible to natural scientists, who were not interested in what Dharmapala made for breakfast before he went to work in the fields. Secondly, the project leader was somewhat disappointed that I had more information on

some households than others. In anthropology, it is expected that you will not be able to 'access' everybody. My gender, for example, influenced how much information I was able to access on two of the households in the study. An elderly male, who was not interested in sharing anything with a young woman, (information or otherwise), headed one household while a young male who was rarely home and often uncomfortable with my 'hanging around' headed the other household. They deemed my enquiries inappropriate considering our age, gender and nationality. There are unrealistic expectations as to how much an anthropologist can actually achieve. Thirdly, when I confided in my research assistants on separate occasions about the project leader's comments, they both immediately suggested that I fabricate information that would please the rest of the team. My assistants' suggestion emphasised an important aspect of life in Sri Lanka, that is, how politics influences villager's ideas and identities. Local people in the Moneragala region have become highly politicised and are adept at using, manipulating and negotiating their interactions with others to manage conflict and competition over access to resources. We must also remember the devastating impact the current civil war and past JVP insurgencies have had on the lives of Sri Lankan people. The record of violence in Sri Lanka has influenced the ways in which people view themselves and others. This, coupled with the history of political wrangling, partisanship and corruption, has profound implications for sustainable development interventions that seek to alleviate poverty and empower local people through participation, a process that requires a climate of trust and co-operation. Anthropology in development is not just about understanding how we contribute to projects by facilitating the presentation of the local point of view, it is also about promoting

the involvement of all those involved in development as well as critically examining the underlying processes and influential components of development itself (see Stirrat, 2000 in Introduction).

The rubber-intercropping project was declared a success. The project scientists achieved one of their primary aims, which was to bring the technology (intercropping three rows of banana in between rows of rubber) out of the field station and into 'real' villages, located across a range of agro-climatic zones. The end 'product' has been the 'identification' of target farmers (full-time farmers in less-developed regions of the intermediate zone, including Moneragala) who have the greatest potential to benefit from high density intercropping with rubber (Stirling *et al.*, Final Report). Problems that would influence farmer uptake of the technology were also identified, notably access to extension information and advice. Stirling *et al.* also highlighted that the project technology could usefully contribute to sustainable development as planting rubber with more rows of banana can lead to greater and earlier latex yield (because better care is taken of the land as farmers are spending time maintaining the intercrops) and financial security (though rubber subsidies) (ibid:ii). In some of the study areas, (particularly Pallekiruwa in Moneragala), Stirling *et al.* even noted that rubber could help secure land title on abandoned crown lands as it is considered to be a permanent crop and thus is a way of demonstrating that the farmer intends to stay on that land and 'improve' it. It is unclear how farmers are able to get around not having a permit for the land in the first place as this is necessary to receive the rubber subsidy, although Woost highlights how, in remote regions of Moneragala:

> "The government encourages permanent plot cultivation...offering limited title to farmers who can demonstrate that they are trying to develop or improve a given plot of land. The official demonstration of 'improvement' or 'development' is not always clear and can be subject to dispute should a farmer's claim to a plot of land be put in jeopardy. Villagers tend to interpret 'improvement' as the construction of rain-fed paddy field where possible [and] the planting of crops like fruit (jak, lime, coconut, papaya), manioc, and sugar cane" (1993:508).

The intercropping project also organised a dissemination workshop was also organised, which showed a concerted effort on the part of the scientists to work *with* farmers. Of particular interest is that the workshop resulted in recommendations for intercropping to be reduced from three rows to two as the farmers who attended the workshop pointed out that three rows would require increased maintenance (pruning), which people were unlikely to carry out. My experiences of the project were a little different, largely I suspect because I was located in a 'farmer-led', rather than a 'researcher-led' site and villagers were generally unaware that a project was even on-going (for reasons outlined in Chapter 6). However, farmers in Moneragala are relatively new to rubber and they have not faced the same problems of fluctuating prices as rubber growers in the more traditional areas of Kegalle and Kalutara. Thus they are still relatively enthusiastic about rubber. Many rubber growers in the villages of Mediriya, Therrapahuwa and Walamatiara expounded the benefits of rubber, particularly that it could provide a permanent source of income. However, farmers with mature rubber were not so sure, particularly with the low prices of latex (anything from Rs28-42 per kg) and problems with finding, and then being able to afford, rubber tappers.[3] Also, some farmers are currently intercropping rubber with two rows of banana so knowledge of the technology already exists in the village although the preferred intercrop is *brinjal*, which throws a question

mark over the extent of participation, even the relevance of the project in my field site. Nevertheless, Stirrat (2000) encourages us to re-examine ideas of what constitutes 'success' in his discussion of the supposed 'failure' of aquaculture in Africa. He (citing Harrison – see Stirrat, 2000) argues that while 'development' invokes cultural factors to explain the failure of aquaculture in Africa, these 'cultural factors,

> "are not the barrier they are assumed to be. In reality, Western concepts of 'development' are themselves cultural artifacts and the ways in which people use, modify and manipulate development interventions have to be understood in a positive light. The apparent 'failure' of aquaculture in sub Saharan Africa is only a failure within a specific cultural definition of development" (p.38).

Some of the points highlighted above are particularly interesting, especially in relation to the targeted 'full-time' farmers and the extension services. It is worth noting that while the rubber-intercropping project aimed to assist in national efforts to alleviate of poverty, the proposal never stated that it would be able to help the poorest of the poor. However, in Chapter 4, I discussed how the most vulnerable people in the village (i.e. the people most in danger of falling in and out of poverty, whatever poverty is deemed to be) could possibly be identified by the types of strategies they employed in order to survive. O f the four full-time farmers in the villages of Mediriya, Therrapahuwa and Walamatiara, three were men who had retired from paid employment (i.e. a civil servant, hotel porter and baker), in receipt of pensions and with children who were also working, although they did not actually farm 'full time'. The other full-time farmer was the 'model farmer' in Walamatiara who had received a substantial amount

[3] Although I witnessed at least one workshop in the village where the rubber development officer provided instruction on how to tap the trees yourself.

of development aid to buy irrigation equipment and was also engaged in other development activities with the Agricultural Department. He *had* to be a full-time farmer as agrarian agencies tend to select those who do not appear to be engaged in any non-farming activities, to receive benefits. Everybody else I knew had diverse livelihood strategies. It appears that targeting 'full-time' farmers is unlikely to help the poor in the Moneragala region.

In addition, the final project report outlined access problems in relation to extension services (Stirling *et al.*,Final Report). It notes that extension officers are often poorly informed and that in remote regions access to extension advice (in whatever shape or form) is generally limited. In order to combat this problem, the project proposes the production of pictorial leaflets to distribute to farmers (ibid). However, a wider view of research and development promotes consideration of the communication and coordination problems that exist within and between government departments in Sri Lanka, which may hamper efforts to improve extension services and advice. Thus, although the rubber-intercropping technology is small-scale and focuses on a specific strategy, it is important to examine wider issues surrounding the project's findings in order to understand the extent to which it may have an impact on the livelihoods of rural villagers.

Concluding Remarks

This thesis contributes to wider discussions concerning indigenous knowledge research, notions of 'participation' and 'sustainability' and the role of the anthropologist in development. It has also raised further questions and themes,

which might usefully be enquired into in the future. Certainly, a more in-depth investigation into project team dynamics (what I had originally hoped to do – see also Nolan, 2002) and the interactions involved within project environment could provide a better insight into the 'learning' process. Such investigations would further contribute to an understanding of why development has repeatedly 'failed' to achieve its target of alleviating world poverty, and how it may break out of this 'pattern' though the increased involvement of local people.

Whether we agree that development has generally 'failed' to help poor people or, to recall Stirrat's comments above, development has 'neglected' to shake off its 'either-or' mentality (see also Uphoff, 1996), it is necessary to examine the processes involved in practising development. Indeed, by asking why development agencies have not done better, Nolan (2002) highlights how learning from projects is more difficult than it appears (p.213). He states:

> "Criticisms of development work have an almost timeless quality: the same things that are wrong today were wrong twenty and thirty years ago. On the whole development agencies have consistently shown themselves to be poorly equipped to design and support effective policies, programs, and projects that directly address problems of poverty... In large part, this is because the agencies have difficulty learning from their experience... although individuals within these agencies may learn a great deal, this learning tends not to find its way into the organisation" (2002: 231-232).

Nolan believes that a 'failure to learn' stems from three main problems. Firstly, a 'technicist mindset' (the 'bigger is better' paradigm) that "generates large areas of ignorance [whilst] providing the illusion of precision, control and understanding". Secondly, he cites the 'development narrative' which is a product of the technicist mindset, creating "stories [such as the 'tragedy of the commons'] or scripts about why the developing world is the way it is". He

believes that narratives "provide a model for thinking about a situation and [are] a way of identifying heroes, culprits and connections between events". Finally, Nolan examines the structures of the development agency which, he says, contribute to learning problems for a variety of reasons, notably a concern to 'move money down the aid pipeline' and a preference for managing projects through short-term contractors (ibid:233-237; see also Stirrat, 2000). Such thinking may not seem relevant to the practical aspects of a small-scale research programme like the rubber- intercropping project but if we are to look at the processes of development from an anthropological point of view, such concerns with 'learning' are significant. Development is about the interaction and the negotiation of identities and different knowledges and competing epistemologies, and we need to examine projects, however large or small, in this light.

This thesis contributes to the field of anthropology more generally by emphasising some of complexities involved as the global interacts with the local. It draws on contemporary post-modernist thinking in anthropology as it implicates the researcher in debates about power and knowledge and highlights that there are no 'privileged voices'; the anthropologist's view is one of many. As Sillitoe points out: "There are strong parallels between postmodernism and participatory approaches to development in the struggle to nullify the expert's assertion of power, reject any judgement by others or imposition of domination" (2002:7). The task for anthropologists in development now is to tackle the problem of how to link theory (anthropology of development) with practice (development anthropology) and to continue to try and reconcile traditional field-

based ethnography with development needs. Nolan believes that anthropology will continue to build on its role in development but to be convincing "anthropology needs to make decisions about what it knows, what it can do, and how this can be presented to others" (2002:261)

My intention is that this thesis not only provide a picture of life in a Sri Lankan village but that it should also highlight the complexity of understanding what influences impact on decision-making. Development-related concerns with 'poverty' and 'power', 'sustainability' and 'participation' are particularly relevant as we examine how people interact with each other in a changing contemporary world. However, we must also be wary of development discourse and address the problem of who actually benefits from the use of such concepts at participation. Throughout this thesis I have made reference to a large body of literature in order to try and comprehend what is happening in development and where my experiences fit in. I may have raised more questions than answers but I have also illustrated that in order for research and development to be relevant to local people *and* sustainable, we must take into account wider contextual issues that affect what people do, what they know and what resources they can access.

Appendix 1

King Dutugämunu[1]

The story of Dutugämunu is recounted by Robinson (1975) and Kapferer (1988):

Kapferer says:

"The Dutugämunu legend is about Sinhalese political and religious resurgence. Through Dutugämunu's military leadership, the Sinhalese rid themselves of their vassal status under a foreign overlord. Lands lost to them are reconquered, and King Dutugämunu makes the full light of Buddhism shine over Sri Lanka. Confined to the southeastern part of the island, at Magama...Dutugämunu captures the ancient Sinhalese capital, Anuradhapura. This city, so legend has it, was one of the cities established by Vijaya" (p.34).

Robinson depicts the story before Dutugämunu becomes King and unites Sri Lanka:

"In ancient times Sri Lanka was divided into three parts: Rohona in the south, Maya in the middle which included Kotmale, and Pihiti in the north around Anuradhapura. King Kalani Tissa rules Maya and King Kävan Tissa rules Rohona. Pihiti was in the hands of Tamil invaders. King Kävan Tissa and Viharamahadevi [his wife, the daughter of King Kalani Tissa from the Middle Kingdom] did not have any children for a long time. One day they took offerings (*dana*) to the priests at the temple. The King said, 'We have no children. After I die, who will rule the country?' He was advised to speak to a certain priest, who was seriously ill. The queen asked the sick priest to be born again in her stomach after he died. The priest thought he would be able to help Buddhism in this way, so he agreed...Ten months later Prince Gamani (meaning 'leader of crowd') was born. The priest's reason for being thus reborn was to send away Tamils and to help Buddhism. When Prince Gamani was born, he was given an elephant. Ten

[1] My spelling of Dutugämunu is taken from De Silva (1981)

giants were born on the day the prince was born...King Kävan Tissa believed he was not yet strong enough to challenge King Elära, the Tamil king of the North. He thought first he would increase his kingdom; secretly he sent colonists [north] to clear the jungles...In the meanwhile, Prince Gamani was growing up and when he was twelve years old, he asked his father to fight King Elara. King Kävan Tissa refused, saying he was not ye ready for war with the Tamils. King Kävan Tissa became worried about the attitude of Prince Gamani, and he decided to make [his sons] promise that they would never fight the Tamils without his permission...Prince Gamani...sent his father female ornaments, saying that was all he was fit to wear...After this, prince Gamani became known as Prince Dutugämanu ('the angry Gamani')" (p.282-284).

The legend (there are various versions) continues tell of how Dutugämunu has to flee the wrath of his father and hide away in Morapitya until his father's death twelve years later. He the has to fight his brother, Saddhātissa, for the throne but eventually Dutugämunu is crowned King and with his brother unites the island of Sri Lanka by conquering Elara.

Appendix 2

PRA Exercises in Walamatiara, Mediriya and Therrapahuwa

Capital assets were ranked using a 'strengths and weaknesses' tool.

Group 1: Walamatiara (6 people):

Category: Financial Assets	**Strengths**	**Weaknesses**	**Rank**
Savings:			
Bank Account	Can use for emergencies. Can withdraw quickly.	In the holidays cannot withdraw.	**1**
Cash in hand	Cash in hand	Very good. Not safe if there is a lot money.	**4**
Jewellery	Very valuable as it is like money. Problem with safety.	Money may be stolen (robbers).	**2**
Livestock	Cattle are a resource. It can be used for milk, fertilizer and ploughing. Cattle are less harmful for paddy land because tractors add chemicals.	Cattle can destroy other peoples land and fight with other cattle. There is more trouble if cattle have a disease (they can die quickly).	**3**
Samurdhi Payments	This aid is good as it gives out small amounts of money. There is an insurance programme: Rs500 for hospital charges Rs2000 for birth delivery.	Poor people are discriminated against by officers. Some rich people get more than poor.	**5**
Insurance	Not relevant	Not relevant	**6**

Loans:			
Loans from friends	This loan is more useful with or without interest. Very good because you have to spend time and labour to get bank loan.		**1** (All but One model farmer)
Funeral Aid Society	Less interest. Can get a loan (up to Rs10,000) quickly. Can repay in installments.	If you do not repay, membership is lost.	**3**
Samurdhi Loans (small groups)	Nobody claimed to be members		**6**
Seethu Loan	Good as you can get money at once and invest it in something.	If you do not repay it is a disadvantage for other people.	**2**
Housing Loan	It is useful if you do not have money.	Will pay double the amount of money when you pay over a long time (even small amount of money).	**4**
Agricultural Loan	Receive donations rather than loans. Aid.	None.	**5 (1 for Model Farmer)**
Inflows of money:			
Pension	Receive monthly-a great help.	This is not increased in relation to increased living costs.	**1 for three of the villagers**
Cash crops	Very good - includes vegetables, fruit.	None.	**1 for three of the villagers**
Donations	Not applicable.	Not applicable.	**3**
Leasing out equipment	Can get money this way (hoe, water pump, spray machines).	None.	**2**

Missed out: Income from timber and gemming (although all participants said they did not mine for gems).

Group 2: Mediriya (16 people)

Category: Financial assets	Rank in importance	Comments
Bank Savings	**1**	Useful for emergencies, disabilities. It is a safety net. Can use a bank loan for funerals.
Cash in hand	**2**	Good in an emergency especially on bank holidays. Use it to buy daily goods.
Jewellery	**6**	Beautiful (decoration), bad if you do not have any. Can mortgage (*leading question was asked here in relation to whether villagers pawned jewellery*). If have jewellery you feel like you have you money.
Livestock	**4**	Daily income from cattle e.g. milk. From chickens you get eggs. You can get fertilizer. Livestock can save money e.g. more income (from produce), more labour (from ploughing) and not much feed.
Samurdhi (small group) savings	**5**	Share money. Can get a loan from the Samurdhi Bank- low interest. Funds self employment- such as making sweets or brooms.
Insurance	**3**	Depends on political parties. In emergencies you can get money.

Loans:		
From friends and neighbours	**8**	Only give to relatives. You can borrow money; it is not a loan. Some people do not repay, it depends on trust.
FAS loan	**7**	Funeral aid society can give you something. It is different from benefits. It is a loan with interest. Some do not like to get loans because it is announced in meetings.
Samurdhi loan	**5**	Less interest. Can get a loan quickly (within one week). Do not need rich people to sign for loans.
Seethu	**2**	It is your own money. You can save money through collections. If there is trust no problem.
SANASA loan	**6**	Less interest to be repaid. Can get money quickly (agriculture loan). Can get money for an emergency (even in holidays) and especially in the evenings (as officers live in the village).
Housing Loan	**3**	Can build a house quicker than trying to save with your own money. You make monthly payments. Under the Samurdhi Programme- reasonable interest rates. Before there was no way of getting a loan. Some have applied for but did not get the loan. Others do not like to get it as they do not like to pay interest. If you have a permanent job you can pay the interest monthly. Farmers did not think they get enough money to repay.
Agricultural Loan	**4**	People do not get them
Bank Loan	**1**	You can get a loan anytime. Farmers can not repay though. If get a loan you have to give collateral. The rich can get loans easier from other places but interest is high.

Inflows of Money:		
Pension	**N/A**	
Cash crops	**1**	You can supply your own daily consumption. All of your needs are supplied from these funds.
Donations/aid	**1**	You can get money without spending your own money. Do not need to repay but can continue farming.
Leasing out equipment	**4**	Additional income can be made (Rs500). You can get hold of instruments if you do not have any.
Gemming	**5**	Few people mine for gems, only rich people do this. If you are mining for gems you ca not do other work. You are tired (*mihansee*), spend money and labour and there are no benefits.
Timber	**6**	Not a good source. It takes a lot of effort, you have to spend more money and labour and there are no benefits.
Income from work	**2**	Lack of job opportunities. You can earn additional income (even farmers do this). With your skills you can supply your own needs (such as building a house) for less expenditure.

HUMAN ASSETS		
Education	**1**	Lack of training for teachers. Lack of money for education of the children. Lack of transport for the children.
Vocational training	**3**	Lack of training. Distance to centers (Moneragala) is too far.
Access to extension services		There are a lot of extension services such as rubber and pepper but there is a lack of participation from farmers who do not have time to attend organisations. Some farmers feel like they know a lot about farming. More attentions and benefits go to16 Mile Post.
Health Facilities	**2**	Distance too far - Monaragala/ Badulla. There is no bus everyday. In the evening it is very difficult to reach the hospital. Transport is expensive (three wheelers).
Labour	**5**	Malaria is a problem as you can not do hard work. General lack of rubber tappers and labourers.

PHYSICAL ASSETS		
Road	**1 (Men)**	Many patches and ditches in the road. It is weak roads and on rainy days it is very bad. Three wheelers and other vehicles can not travel up it.
Transport	**3**	No buses. You have to spend more money on other forms of transport.
Housing/toilets	**4**	Lack of toilets. There are more hole-in-the-ground toilets.
Water supply	**1 (women)**	Bathing pollutes the river. Many people have no drinking water (10 houses with no access).
Energy	**2**	95% of household lack electricity.

NATURAL ASSETS		
Lands	**2**	Land permit is needed. Soil erosion is a problem. Loss of fertility. There is not enough land- rich people have more land than the poor. Here *brinjol* cultivation is the most popular (16 mile post has no *brinjol* cultivation as the soil is gravelly). Along the river land is more fertile.
Forest	**1**	Deforestation causes a lack of water. Illegal timber felling on Therrapahuwa Mountain - this is done by 'outsiders'. Deforestation causes less rain and an imbalance in the forest. Medicinal plant are extinct, no firewood, wild animal extinction.
River	**3**	Erosion causes dirty water. Water pollution is a problem. Chemicals, oils, kerosene get into the water. There is cholera and malaria.
SOCIAL ASSETS		
Funeral aid society	**2**	When there is a death you can get benefits. If family members can not do the work you can get help
Samurdhi society	**5**	Same as above
Seethu Groups	**3**	Trust building, communal work, can get money.
Relatives/friends	**1**	In an emergency you can get assets together quickly.
Labour networks (*attam* ect)	**4**	Often you can not work alone. This way you can get the work done quickly.

Group 3: Therrapahuwa (5 people)

Category Financial Assets:	Rank	Comments
Bank savings	**2**	You can get loans. If you have some savings you feel like you have some money.
Cash in hand	**5 (first time)** **1 (second time)**	Useful for daily use and being able get medicine for illnesses.
Jewellery	**3**	You can mortgage in an emergency.
Livestock	**4**	You can use for agricultural activities. They can give fertiliser, milk and eggs. You can sell livestock in an emergency.
Samurdhi savings	**1 (first time)** **5 (second time)**	You can use the savings in an emergency.
Insurance	**6**	No members in this group. It is very difficult to get money for insurance. They (the insurance company) check everything. It is difficult to pay Rs325 a month.
Person and friends	**5**	Interest is too much and you have to pay it back on the exact date.
FAS loan/benefits	**2**	No loans - benefits only
Samurdhi loan	**4**	If you get a loan it is difficult to repay. You can decide the interest rate.
Seethu loan	**3**	No interest on this. Can get a lot of money and get goods like furniture.
Housing loan	**1**	Low interest rates. Three years is enough time to repay. Can get up to Rs25,000 to repair the house. You can choose the amount you want but you will have to pay more interest if the amount is high.
Agricultural loan	**6**	Not applicable

Inflow of money		
Pension	**Not applicable**	Not applicable
Cash crops	**1**	Can earn more money. At least for daily consumption, basic needs met. Can collect continuous income.
Donations/aid	**4**	You can get the aid in advance and you can do some farming. You do not have to repay. You can get some help e.g. fertiliser.
Leasing out equipment	**Not applicable**	Not Applicable
Gemming	**3**	Can earn a lot of money at once. If have a lot of money you can build a house, get furniture or buy jewellery. It is a good business but you need a permit.
Income from work	**5**	Good. Hired labour/mason/
Carpenter	**3**	Can earn Rs350 a day which is a good income. Some villagers do additional work other than farming.

HUMAN ASSETS		
Education	**1**	Teachers do not care, especially about poor children. They have dirty clothes and are without books, bags or a water bottle. The teachers only care about the rich children. Poor children are excluded. There are less benefits.
Vocational training	**3**	You can receive training but there is no money to go to training centre.
Access to extension services	**5**	Don't need extension services. They do not come to visit the land anyway. For example, the pepper officer doesn't come, just gives pepper. Lack of concern.
Health Facilities	**2**	Malaria is a problem. The government does not check. They do not give medicine. Binkohomba (plant) is good for malaria. Malaria may have come from a virus and the government only tries to control the mosquito.
Labour	**4**	No problem with labour. You can get hired labour but it is expensive.
PHYSICAL ASSETS		
Road	**1**	Roads are poor. During rainy days it is difficult to walk. On hot days there is too much dust.
Transport	**3**	No government buses but you can take three wheelers. Walking is free of charge!
House/toilets	**4**	The government does not give toilet facilities. Most toilets are holes- some houses are without toilets.
Water Supply	**2**	Long distances, dirty water and no water in the drought season. Doctors say to use clean water but there is none.

Energy	**5**	No electricity because of politics, sunlight only!
Buildings (school /healthcare centre)	**6**	Parents should spend money on building schools. When a child enters they want to be able to learn.
Agricultural instruments	**7**	Lack of instruments, motors, hoses.

NATURAL ASSETS		
Land	**2**	Permits are a problem. There is a lack of land. The rich have more than the poor. Rich people like MP's have hundreds of acres (middle class farmers). They have two acres. Infertility is a problem (erosion), fertile soil is washed away. In lowland, salinity is a problem and it is worse in rainy season.
Forest	**1**	No rain which is a big problem. Illegal felling and deforestation. In 1970-77 sugar cultivation increased felling, next guinea grass came. When people cut large trees, young plants die and there is less rain. Animals are extinct due to deforestation and fires. There is no food on the mountain, no water or medicinal plants gone. Species such as Rasakinda, bulu, aralu, binkohomba, fruit are gone.
River	**3**	Bathing in the river is a problem. Drinking water is not clean because of gemming, cows bathing, elephants, garbage and the hospital sewage system.

SOCIAL ASSETS		
FAS	**2 (first time)** **3 (second time)**	Funeral. The society loans an iron sheet (for temporary shelter), money, banners and labour.
Samurdhi/ Small groups	**3 (first time)** **4 (second time)**	You can get aid to set up self employment such as buying and selling goods.
Seethu groups	**4 (first time)** **5 (second time)**	You can share money but you can only do seethu with people you trust. It is best to select neighbours or relatives within the village, not outsiders.
Social networks/ relatives/friends	**5 (first time)** **2 (second time)**	Friends are in the same boat and so they do not have money to give. You can get money of people for special events e.g. funerals, weddings etc.
Labour network/hired network	**1**	Community activity. It is useful for poorest people as they do not have to pay money for hired labour.

Bibliography

Actionaid. 1994. *Lessons From Livelihood* (leaflets). London.

Adams, R.N. 1977. Power in Human Societies: A Synthesis. In: R.D. Fogelson and R.N. Adams (eds.). *The Anthropology of Power. Ethnographic Studies from Asia, Oceania and the New World.* London, Academic Press, pp.387-410.

Agar. M.H. 1986. *Speaking of Ethnography.* Sage Publications.

Ahmed, A. and Shore, C. (ed.).1995. *The Future of Anthropology: It's Relevance to the Contemporary World.* London and Atlantic Highlands, Athlone.

Ahmed, A. and Shore, C. 1995. Is Anthropology Relevant to the Contemporary World? In: A. Ahmed and C. Shore (eds.). *The Future of Anthropology: It's Relevance to the Contemporary World.* London and Atlantic Highlands, Athlone, pp.12-45.

Ahmed, Z. 2000. "When a Bangladesh 'Native' is not a Bangladesh 'Native'". In: P. Sillitoe (ed.). *Indigenous Knowledge Development in Bangladesh: Present and Future.* London, Intermediate Technology Publications, pp.203-212.

Alailima, P.J. 1997. "Social Policy in Sri Lanka". In: W.D. Lakshman (ed.). *Dilemmas of Development: Fifty years of Economic Change in Sri Lanka.* Colombo, Sri Lanka Association of Economists, pp.127-170.

Alcorn, J. 1995. "Ethnobotanical Knowledge Systems – A Resource for Meeting Rural Development Needs". In: D.M. Warren, L.J.Slikkerveer and D. Brokensha (eds.). *The Cultural Dimensions of Development: Indigenous Knowledge Systems.* London, Intermediate Technology Publications, pp.1-12.

Anacleti, O. 1993. "Research into Local Culture: Implications for Participatory Development". *Development in Practice*, **3**(1): 44-47.

Anders, M.M. and Mueller, R.A.E. 1995. "Managing Communication and Research Task Perceptions in Interdisciplinary Crops Research". *Quantity J.Int Agric.* **34**: 53-69.

Anon. *The True History of Sri Lanka.* www.members.tripod.com. 19/09/02

Antweiler, C. 1998. "Local Knowledge and Local Knowing: An Anthropological Analysis of Contested "Cultural products" in the Context of Development". *Anthropos,* **93**: 469-494.

Apfel-Marglin, F. and S. Apfel-Marglin (eds.).1996. *Decolonizing Knowledge: From Development to Dialogue.* Oxford, Clarendon Press.

Apffel-Marglin, F.1996. "Introduction: Rationality and the World". In: F. Apfel-Marglin and S. Apfel-Marglin (eds.). *Decolonizing Knowledge: From Development to Dialogue.* Oxford, Clarendon Press.

Arachchi, R.B.S. 1998. "Drought and Household Coping Strategies among Peasant Communities in the Dry Zone of Sri Lanka". In: J.Twigg and M.R.Bhatt (eds.). *Understanding Vulnerability: South Asian Perspectives*. London, Intermediate Technology Publications, pp.27-46.

Arce, A. (2001) "Marketing Expert Notions of Local Life: Development as if People Really Matter?" A paper presented at the Development Studies Association Conference, *Different Poverties, Different Policies*, held September 10-12 2001, Institute for Development Policy and Management, University of Manchester.

Asad,T. (ed.).1973. *Anthropology and the Colonial Encounter*. London, Ithaca Press.

Ashton, M., S. Gunatilleke, N. de Zoysa, M.D. Dassanayake, N. Gunatilleke and S. Wijesundara. 1997. *A Field Guide to the Common Trees and Shrubs of Sri Lanka*. Colombo, WHT Publications (PVT.) Limited.

Attapattu, J. 1997. *Sustainable Farming Systems and the Role of Change Agents*. PhD Thesis: Silsoe College, Cranfield University.

Auty, R.M. 1995. *Patterns of Development: Resources, Policy and Economic Growth*. London, Edward Arnold.

Baker, V.J. 1988. *The Blackboard in the Jungle: Formal Education in Disadvantaged Rural Areas- A Sri Lankan Case*. Eburon Delft.

Baker, V.J. 1998. *A Sinhalese Village in Sri Lanka: Coping with Uncertainty*. Fort Worth, Harcourt Brace & Co.

Balstad Miller, R. 1994. "Interactions and Collaboration in Global Change across the Social and Natural Sciences". *Ambio*, **23** (1): 19-24.

Bandarage, A.1983. *Colonialism in Sri Lanka – The Political Economy of the Kandyan Highlands, 1833-1886*. Mountain Publishers.

Barlett, P.G. (ed.).1980. *Agricultural Decision Making – Anthropological Contributions to Rural Development*. London, Academic Press.

Barlett, P.G. 1980. "Introduction: Development issues and Economic Anthropology". In: P.G. Barlett (ed.). *Agricultural Decision Making – Anthropological Contributions to Rural Development*. London, Academic Press, pp.1-16.

Barr, J.J.F. and P.Sillitoe.2000. "Databases, Indigenous Knowledge and Interdisciplinary Research". In: P. Sillitoe (ed.). *Indigenous Knowledge Development in Bangladesh: Present and Future*. London, Intermediate Technology Publications, pp.179-198.

Bebbington, A. 1999. "Capitals and Capabilities: A Framework for Analysing Peasant Viability, Rural livelihoods and Poverty". *World Development*, **27**(12): 2021-2044.

Belshaw, C.S. 1976. *The Sorcerer's Apprentice: An Anthropology of Public Policy*. Oxford, Pergamon Press Inc.

Benthall, J.1995. "From Self-Applause through Self-Criticism to Self-Confidence". In: A. Ahmed and C.Shore (eds.). *The Future of Anthropology: Its Relevance to the Contemporary World*. London, Athlone. pp.1-11

Bentley, J.W. 1989. "What Farmers Don't Know Can't Help Them: The Strengths and Weaknesses of Indigenous Technical Knowledge in Honduras". *Agriculture and Human Values*, **3**: 25-31.

Béteille, A. 1998. "The Idea of Indigenous People". *Current Anthropology*, **39**(2):187-191.

Bond, R. and Hulme, D. 1999. "Process Approaches to Development: Theory and Sri Lankan Practice". *World Development*, **27**(8): 1339-1358.

Bond, R. 2001. "Opening Pandora's Box: regional Action on a Sustainable Growth with Equity Concept" (*Draft Chapter for 'Development Planning and Poverty Reduction'* 18th September).

Bradnock, R. and R. Bradnock. 1998. *Sri Lanka Handbook*. Bath, Footprint Handbooks.

Brow, J. 1988. "In Pursuit of Hegemony: Representations of Authority and Justice in a Sri Lankan Village". *American Ethnologist*, **15**: 311-327.

Brow, J. 1990. "Nationalist Rhetoric and Local practice: The Fate of the Village Community in Kukulewa". In: J. Spencer (ed). *Sri Lanka: History and the Roots of Conflict*. London and New York, Routledge, pp.125-144.

Brow, J. and Weeramunda, J. (eds.). 1992. *Agrarian Change in Sri Lanka*. London and New Delhi, Sage Publications.

Brow,J. 1992a. "Themes in Agrarian Change". In: J. Brow and J. Weeramunda (eds.). *Agrarian Change in Sri Lanka*. London and New Delhi, Sage Publications, pp. 41-60.

Brow, J. 1992b. "Agrarian Change and the Struggle for Community in Kukulewa Anuradhapura District". In: J. Brow and J. Weeramunda. (eds.). *Agrarian Change in Sri Lanka*. London and New Delhi, Sage Publications, pp. 261-291.

Brown, M.F. 1998. "Can Culture be Copyrighted?" *Current Anthropology*, **19** (2): 193-219.

Brunch, R. 1991. "People Centred Agricultural Improvement". In: Haverkort, B., J. Van der Kamp and A. Waters-Bayer (eds.). *Joining Farmer's Experiments: Experiences in Participatory Technology Development*. London, Intermediate Technology Publications. pp. 23-48.

Burkey, S. 1993. *People First – A Guide to Self Reliant, Participatory Rural Development*. London and New Jersey, Zed Books.

Carrithers, M. 1992. *Why Humans Have Culture: Explaining Anthropology and Social Diversity*. Oxford and New York, Oxford University Press.

Cassen, R. & Associates. 1994. *Does Aid Work? Report to an Intergovernmental Task Force*. Oxford, Clarendon Press.

Cernea, M. 1982. "Indigenous Anthropologists and Development-Oriented Research". In: H. Fahim (ed.). *Indigenous Anthropology in Non-Western Countries: Proceedings of a Burg Wartenstein Symposium*. North Carolina, Carolina Academic, pp.121-137.

Chaiken, M. and A.K. Fleuret (eds.).1990. *Social Change and Applied Anthropology: Essays in Honor of David W. Brokensha*. Westview Press.

Chambers, R. and B.W.E Wickremanayake .1977. "Agricultural Extension: Myth, Reality and Challenge". In: B.H.Farmer (ed.). *Green Revolution? Technology and Change in Rice- growing Areas of Tamil Nadu and Sri Lanka*. London, MacMillan Press Ltd, pp.155-167.

Chambers, R., A. Pacey and L.A. Thrupp (eds.).1989. *Farmer First: Farmer Innovation and Agricultural Research*. London, Intermediate Technology Publications.

Chambers, R. 1998. "Beyond "Whose Reality Counts?" New Methods We Now Need". In: O. Fals (ed.). *Peoples Participation – Challenges Ahead*. New York, Intermediate Technology Publications, pp.105-130.

Chambers, R. and Conway, G.R. 1992. *Sustainable Rural livelihoods: Practical Concepts for the 21st Century*. Institute of Development Studies. Discussion Paper 296.

Cheater, A. 1995. "Globalisation and the New Technologies of Knowing – Anthropological Calculus or Chaos?" In: M. Strathern (ed) *Shifting Contexts – Transformations in Anthropological Knowledge*. London and New York, Routledge.

Chin-Chaokoh. 1992. "Sustainable Agriculture for the Asian and Pacific Region". Papers delivered at the *11th Meeting of the Technical Advisory Committee of the Food and Fertiliser Technology Centre for the Asian and Pacific Region*. Food and Fertiliser Centre for the Asian and Pacific Region.

Chubin, D.E., A.L. Porter and F.A. Rossini. (eds.).1986. "The Why and the How". In Chubin, D.E., A.L.Porter, F.A.Rossini and T.Connolly (eds.). *Interdisciplinary Analysis and Research: Theory and Practice of Problem-Focussed Research and Development.* Edinburgh, Lomond.

CIA – The World Fact Book.2000. *Sri Lanka.* http://www.cia.gov/cia/publications/factbook/geos/ce.htm. 30/05/01. pp.1-9.

Cleaver, F. 2001. "Institutions, Agency and the Limitations of Participatory Approaches to Development". In: B.Cooke and U. Kothari (eds.). *Participation: The New Tyranny.* London and New York, Zed Books. pp.36-55.

Clifford, J. and G. E. Marcus. 1986. *Writing Culture: The Poetics and Politics of Ethnography.* London, University of California Press.

Clifford, J. 1984. "Introduction: Partial Truths". In: J. Clifford and G. E. Marcus (eds.). 1986 *Writing Culture: The Poetics and Politics of Ethnography.* London, University of California Press. pp.1-26.

Connerton, P. 1989. *How Societies Remember.* Cambridge, Cambridge University Press.

Conway, G.R. and Barbier, E.B. 1990. *After the Green Revolution – Sustainable Agriculture for Development.* London, Earthscan Publications Ltd.

Cooke, B. and Kothari, U. 2001. "The Case for Participation as Tyranny". In : B.Cooke and U. Kothari. *Participation: The New Tyranny.* London and New York, Zed Books, pp.1-15.

Cooke, B. 2001. "The Social Psychological Limits of Participation". In : B.Cooke and U. Kothari. *Participation: The New Tyranny.* London and New York, Zed Books, pp.102-121.

Corbridge, S. (ed.). 1995. *Development Studies: A Reader.* London, Arnold.

Cowen, M. and R. Shenton.1995. "The Invention of Development". In: J. Crush (ed.) *Power of* Development. London and New York, Routledge. pp.27-43.

Croft, S. and P. Beresford. 1996. "The Politics of Participation". In: D. Taylor (ed.) *Critical Social Policy: A Reader.* Sage Publications. pp.175-198.

Crow, G.M., L. Levine and N. Nager. 1992. "Are Three Heads Better Than One? Reflections on Doing Collaborative Interdisciplinary Research", *American Educational Research Journal*, **29**(4): 737-753.

Crush, J. 1995. "Imagining Development". In: Crush, J. (ed.). *Power of Development.* London and New York, Routledge, pp. 1-23.

Dahl, R. 1987. "Power as the Control of Behaviour (1968)". In: S. Lukes (ed.). *Power.* Basil Blackwell, pp.37-58.

Department of Census and Statistics – Sri Lanka: http://www.statistics.gov.lk 01/06/03.

De Silva, K.M.1981. *A History of Sri Lanka.* Chennaim, Oxford University Press.

De Walt, B. R. 1994. "Using Indigenous Knowledge to Improve Agriculture and Natural Resource Management", *Human Organisation,* **53**(2): 123-131.

Dissanaike, T. 2000. "Farmer in the Dark". *The Sunday Times* (Sunday, August 13), pp.7.

Dixon, H.J., J.W. Doores, L. Joshi and F.L. Sinclair. 1999. *Agroforestry Knowledge Toolkit for Windows (WinAkt): Methodlogical Guidelines, Computer Software and Manual.* School of Agricultural and Forest Sciences, University of Wales, Bangor.

Dixon, P.J., J.J.F.Barr and P.Sillitoe. 2000. "Actors and Rural Livelihoods: Integrating Interdisciplinary research and Local Knowledge". In: P. Sillitoe (ed.). *Indigenous Knowledge Development in Bangladesh: Present and Future.* London, Intermediate Technology Publications, pp.161-178.

DFID (Department for International Development). *Sustainable Livelihoods Guidance Sheets.* www.livelihoods.org.

Dunham, D. and S. Jayasuriya. 2001. "Economic Liberalisation and Socio-Political Decay: A Case Study of Sri Lanka". A Paper presented at the Development Studies Association Conference, *Different Poverties, Different Policies*, held September 10-12 2001, Institute for Development Policy and Management, University of Manchester.

Easter, C.D. 1995. "Crushing Rural Poverty: Experiences of the Commonwealth". In: J. Mullen (ed.). *Rural Poverty Alleviation.* Averbury, Aldershot, pp.5-24.

Epton, S.R., R.L Payne and A.W. Pearson.1983. *Managing Interdisciplinary Research.* John Wiley & Sons.

Escobar, A. 1991. "Anthropology and the Development Encounter: The Making and Marketing of Development Anthropology", *American Ethnologist*, **18**(4):658-683

Escobar, A. 1995. "Imagining a Post-Development Era". In: J. Crush (ed.). *Power of Development.* London and New York, Routledge, pp.211-227.

Faber, J. and W.J. Scheper .1997. "Interdisciplinary Social Science: A Methodological Analysis". *Quality and Quantity*, **31**: 37-56.

Fahim, H. and Helmer, K.1982. "Themes and Counter Themes: The Burg Wartenstein Symposium". In: H. Fahim (ed.). *Indigenous Anthropology in Non-Western Countries: Proceedings of a Burg Wartenstein Symposium.* North Carolina, Carolina Academic, ppxi-xxxiii.

Fahim, H. 1982. "Communication Amongst Anthropologists Across Non-Western Countries". In: H. Fahim (ed.). *Indigenous Anthropology in Non-Western Countries: Proceedings of a Burg Wartenstein Symposium*. North Carolina, Carolina Academic, pp.138-151.

Falk, I. and Kilpatrick, S. 2000. "What is Social Capital? A Study of Interaction in a Rural Community", *Sociologia Ruralis*, **40** (1): 88-110.

Farmer, B.H. 1977. *Green Revolution? Technology and Change in Rice-Growing Areas of Tamil Nadu and Sri Lanka*. London, The Macmillan Press Ltd.

Fernandez, M.E. 1991. "Participatory Research with Community Based Farmers" In: B. Haverkort, J. Van der Kamp and A. Waters-Bayer. (eds.). *Joining Farmer's Experiments: Experiences in Participatory Technology Development*. Intermediate Technology Publications, pp.77-92.

Fernando, L. 1997. "Development Planning in Sri Lanka". In: W.D. Lakshman (ed.). *Dilemmas of Development: Fifty years of Economic Change in Sri Lanka*. Colombo, Sri Lanka Association of Economists. pp.101-126.

Fernando, M.S. 2000. *Rituals, Folk Beliefs & Magical Arts of Sri Lanka*. Colombo, Godage & Brothers.

Fine, B. 1999. "The Development State is dead - Long Live Social Capital?" *Development and Change*, **30**:1-19.

Firth, R. 1981. "Engagement and Detachment: Reflections on Applying Social Anthropology to Social Affairs". *Human Organisation*, **40**(3): 193-201.

Fogelson, R.D. and Adams, R.N. (eds.). 1977. *The Anthropology of Power. Ethnographic Studies from Asia, Oceania and the New World*. London, Academic Press.

Foucault, M. 1987. "Disciplinary Power and Subjection". In: S. Lukes (ed.). *Power*. Basil Blackwell, pp.229-252.

Francis, P. 2001. "Participatory Development at the World Bank: The Primacy of Process". In: B.Cooke and U. Kothari. *Participation: The New Tyranny*. London and New York, Zed Books, pp.72-87.

Gabriel, T. 1991. *The Human Factor in Rural Development*. London, Belhaven Press.

Galbraith, J.K. 1987. "Power and Organisation (1984)". In: S. Lukes (ed.). *Power*. Basil Blackwell, pp.211-228.

Geertz, C. 1963. *Agricultural Involution:The Process of Ecological Change in Indonesia*. Berkeley and Los Angeles, University of California Press.

Gegeo, D.W.1998. "Indigenous Knowledge and Empowerment: Rural Development Examined from Within". *The Contemporary Pacific*, **10**(2):289-315.

Giri, A.K. 1998. "Transcending Disciplinary Boundaries: Creative Experiments and the Critiques of Modernity", *Critique of Anthropology*, **18**(4): 379-404.

Golde, P. 1986. "Odyssey of Encounter". In: P. Golde (ed.). *Women in the Field: Anthropological Experiences*. London, University of California Press Ltd, pp.67-96.

Goldman, A.I. 1987. "Toward a Theory of Social Power (1972)". In: S. Lukes (ed) *Power*. Basil Blackwell, pp.156-202

Gombrich, R. and Obeyesekere, G. 1988. *Buddhism Transformed: religious Change in Sri Lanka*. Princeton, Princeton University Press.

Government of Sri Lanka. 1997. *Sri Lanka Country Profile: Implementation of Agenda 21. Review of Progress made since the United Nations Conference on Environment and Development, 1992.* http://www.un.org/esa/earthsummit/lamka-cp.htn. 30/05/01. pp1-46

Gray, A. 1997. *Report for the Institute of Terrestrial Ecology (Bangor) on a Visit to Sri Lanka to Assess the Market Impact of a Potential Increase in Production of Banana Resulting from High Density Intercropping of Banana with Rubber.* Kent, Natural Resources Institute.

Griffin, K. 1999. *Alternative Strategies for Economic Development*. Basinstoke, The Macmillan Press Ltd.

Grillo, R. and Rew, A. (eds.).1985. *Social Anthropology and Development Policy*. London and New York, Tavistock Publications.

Grillo, R. 1985. "Applied Anthropology in the 1980s: Retrospect and Prospect". In: R. Grillo and A. Rew (eds.). *Social Anthropology and Development Policy*. London and New York, Tavistock Publications. pp.1-36.

Grillo, R. 1997. "Discourse of Development: The View from Anthropology". In: R. Grillo and R.L. Stirrat (eds.). *Discourses of Development: Anthropological Perspectives*. New York and Oxford, Berg, pp.1-33.

Grills, S. (ed.). 1998. *Doing Ethnographic Research – Fieldwork Settings*. London, Thousand Oaks and New Delhi, Sage Publications.

Gujral, R.S. "Homesteads and Agroforestry Systems in Asia". In: M. Zainul Abedin, C.K.Lai and M.Omar Ali (eds.). *Homestead Plantation and Agroforestry in Bangladesh*. Proceedings of a National Workshop held July 17-19 in Jaydebpur, Bangladesh, pp.1-17.

Gunesekara, R.G.G.O. 1977. "Institutional credit to the Peasant sector through Co-operatives". In: S.W.R de A. Samarasinghe (ed.). *Agriculture in the Peasant Sector of Sri Lanka.* Peradeniya, Ceylon Studies Seminar. pp.49-55.

Gunasekara, T. 1992. "Democracy, Party Competition and Leadership: The Changing Power Structure in a Sinhalese Community". In: J. Brow and J. Weeramunda (eds.). *Agrarian Change in Sri Lanka.* London and New Delhi, Sage Publications, pp229-260.

Gunasekara, T. 1994. *Hierarchy and Egalitarianism: Caste, Class and Power in Sinhalese Peasant Society.* London, The Athlone Press.

Gunasinghe, N. 1992. "Transformarion and Trajectories of Agrarian Systems in Jaffna and Nuwara Eliya Districts". In: J. Brow and J. Weeramunda (eds.). *Agrarian Change in Sri Lanka.* London and New Delhi, Sage Publications. pp.131-154.

Gupta, A.K. 1991. "Peasant Knowledge – Who Has Rights To It". In: B. Havekort, J. Van der Kamp and A. Waters-Bayer. (eds.). *Joining Farmer's Experiments: Experiences in Participatory Technology Development.* London, Intermediate Technology Publications, pp.17-20.

Hailey, J. 2001. "Beyond the Formulaic: Process and Practice in South Asian NGOs". In: B. Cooke and U. Kothari (eds.). *Participation: The New Tyranny.* London and New York: Zed Books. pp.88-101.

Hamrin, T. 2000. "Groping about for Indigenous Knowledge. A Fumbling Effort". Paper presented at the Association of Social Anthropologists Conference, SOAS. http://www.asa2000.anthropology.ac.uk/bcampbell/bcampbell.html. 16/03/01.

Handawela, J. 2001. "Towards a Methodology to Test Indigenous Knowledge", *Compas Magazine* (March).

Hardin, G. 1968. "The Tragedy of the Commons", *Science* **162**: 1243-1248.

Haverkort, B., J. Van der Kamp and A. Waters-Bayer (eds.).1991. *Joining Farmer's Experiments: Experiences in Participatory Technology Development.* London, Intermediate Technology Publications.

Haverkort, B. 1991. "Farmers' Experiments and Participatory Technology Development". In: B. Havekort, J. Van der Kamp and A. Waters-Bayer. (eds.) *Joining Farmer's Experiments: Experiences in Participatory Technology Development.* London, Intermediate Technology Publications, pp.3-16

Haverkort, B. and Hiemstra, W. (eds.). 1999. *Food for Thought: Ancient Visions and New Experiments of Rural People* (Compas). London, Zed Books.

Henkel, H. and R. Stirrat. 2001. "Participation as Spiritual Duty; Empowerment as Secular Subjection". In: B. Cooke and U. Kothari. *Participation: The New Tyranny.* London and New York, Zed Books, pp.168-184.

Hobart, M. (ed.). 1993. *An Anthropological Critique of Development: The Growth of Ignorance.* London, Routledge.

Hochegger, K. 1998. *Farming Like the Forest: Traditional Home Garden Systems in Sri Lanka.* Germany, Margraf Verlag.

Hulme, D. and R. Montgomery. 1995. "Co-operatives, Credit and the Rural Poor. Private Interest, Public Choice and Collective Action in Sri Lanka". In: J. Mullen (ed.) *Rural Poverty Alleviation.* Avebury, Aldershot. pp.99-115.

Hymes, D. (ed.). 1974. *Reinventing Anthropology.* New York, Vintage Books.

Hymes, D. 1974. "Introduction: the Use of Anthropology: Critical, Political, Personal". In: D. Hymes (ed.). *Reinventing Anthropology.* New York, Vintage Books, pp.3-79.

Innis, D.Q. 1997. *Intercropping and the Scientific Basis of Traditional Agriculture.* London, Intermediate Technology Publications.

International Institute of Rural Reconstruction (IIRR). 1996. *Recording and Using Indigenous Knowledge: A Manual.* Phillipines – IIRR.

James, W. 1973. "The Anthropologists as Reluctant Imperialist". In: T. Asad (ed.). *Anthropology and the Colonial Encounter.* London, Ithaca Press, pp.41-69.

Janowski, M. 1997. *Report on an Analysis of Rural Livelihoods and Poverty in Two Villages in Sri Lanka.* Kent, Natural Resources Institute.

Janssen, W. and Goldsworthy, P.1995. "Integrating and Managing Multidisciplinary Teams in Agricultural and NRN Research", *International Services for National Agricultural Research (ISNAR): Briefing Paper 23*, pp.1-8.

Janssen, W. and Goldsworthy, P.1996. "Multidisciplinary Research for Natural Resource Management: Conceptual and Practical Implications", *Agricultural Systems*, **51**: 259-279.

Jayasuriya. S. and Dunham. D. 2001. "Economic Liberalisation and Socio-Political decay: A Case Study of Sri Lanka". A paper presented at the Development Studies Association Conference on *Different Poverties, Different Policies*, held 10-12 September, Institute for Development Policy and Management, University of Manchester.

Jazairy, I., M. Alamgir and T. Panuccio. 1992. *The State of World Rural Poverty.* London, Intermediate Technology Publications.

Johannsen, A.M. 1992. "Applied Anthropology and Post-Modernist Ethnography", *Human Organisation*, **51**(1): 71-81.

Johnson, B.L.C. and Lem. Scrivenor, M. 1981. *Sri Lanka: Land People and Economy.* London, Heinemann.

Kapferer, B. 1988. *Legends of People: Myths of State. Violence, Intolerance and Political Culture in Sri Lanka and Australia.* Washington and London, Smithsonian Institution Press.

Karunananyake, M.M. and Abhayaratna, M.D.C.1999. "From Integrated Rural Development to Rural Economic Advancement: Poverty Alleviation Through Regional Development in Sri Lanka". *A Paper Presented at the Graduate Faculty of the University of Sri Jayawardenapura.*

Kaufmann, G. 1997. "Watching the Developers: A Partial Ethnography". In: R. Grillo and R.L. Stirrat. (eds.). *Discourses of Development: Anthropological Perspectives.* New York and Oxford, Berg. pp.107-131.

Kemper, S. 1991. *The Presence of the Past: Chronicles, Politics and Culture in Sinhala Life.* London: Cornell University Press.

Kothari, U. 2001. "Power, Knowledge and Social Control in Participatory Development". In: B.Cooke and U. Kothari (eds.). *Participation: The New Tyranny.* London and New York, Zed Books, pp.139-152.

Lakshman, W.D. 1997. "Income Distribution and Poverty". In: W.D. Lakshman (ed.). *Dilemmas of Development: Fifty years of Economic Change in Sri Lanka.* Colombo, Sri Lanka Association of Economists, pp.171-222.

Leach, E.R. 1961. *Pul Eliya – A Village in Ceylon: A Study of Land Tenure and Kinship.* Cambridge, Cambridge University Press.

Leach, M., R. Mearns and I. Scoones.1999. "Environmental Entitlements: Dynamics and Institutions in Community-Based Natural Resource Management". *World Development*, **27**(2):225-247.

Lemert, C.C. and G. Gillan.1982. *Michel Foucault.* New York, Colombian University Press.

Leonard, D.K. 1977. *Reaching the Peasant Farmer: Organisation Theory and Practice in Kenya.* Chicago, University of Chicago Press.

Lester, R.C. 1973. *Theravada Buddhism in Southeast Asia.* Ann Arbor, The University of Michigan Press.

Lewis,I.M. 1995. "Anthropologists for Sale?" In: A. Ahmed and C. Shore (eds.). *The Future of Anthropology: It's Relevance to the Contemporary World.* London, Athlone, pp.94-109.

Lindberg, Clas. 1996. *Society and Environment Eroded: A Study of Household Poverty and Natural resource Use in Two Tanzanian Villages*. Uppsala, Gotab.

Lockeretz, W. 1991. "Multidisciplinary Research and Sustainable Agriculture", *Biological Agriculture and Horticulture*, **8**:101-122.

Lonely Planet. 1996. *Lonely Planet Travel Survival Kit: Sri Lanka*. Australia, Lonely Planet Publications.

Long, N. 1996. "Globalisation and Localisation: New Challenges to Rural Research". In: H. Moore (ed.). *The Future of Anthropological Knowledge*. London: Routledge.

Long, N. 1992a. "Research Practice and the Social Construction of Knowledge". In: N. Long and A. Long (eds.). *Battlefields of Knowledge: The Interlocking of Theory and Practice in Social Research and Development*. London and New York, Routledge, pp.3-15.

Long, N. 1992b. "From Paradigm Lost to Paradigm Regained? The Case for an Actor-Oriented Sociology of Development". In: N. Long and A. Long (eds.). *Battlefields of Knowledge: The Interlocking of Theory and Practice in Social Research and Development*. London and New York, Routledge, pp.16-43.

Long, A. 1992. "Goods, Knowledge and Beer: The Methodological Significance of Situational Analysis and Discourse". In: N. Long and A. Long (eds.). *Battlefields of Knowledge: The Interlocking of Theory and Practice in Social Research and Development*. London and New York, Routledge, pp.147-170.

Lukes, S. 1974. *Power – A Radical View*. London, MacMillan.

Lukes, S. (ed). 1987. *Power*. Oxford, Basil Blackwell.

Mair, L. 1984. *Anthropology and Development*. London, Macmillan Press.

Marzano, M. 2002. "Rural Livelihoods in Sri Lanka: An Indication of Poverty?" *Journal of International Development* **14**: 817-828.

Mathur, H.M. 1997. "Participatory Development, Some Areas of Concern", *Sociological Bulletin* **46**(1): 53-95.

Max-Neef, M. 1998. "Economy, Humanism and Neoliberalism". In: O. Fals (ed.) *Peoples Participation – Challenges Ahead*. New York, Intermediate Technology Publications. pp.63-79.

Miller, R.B. 1994. "Interactions and Collaboration in Global Change across the Social and Natural Sciences". *Ambio* **23**(1):19-24.

Moore, M. 1985. *The State and Peasant Politics in Sri Lanka*. Cambridge, Cambridge University Press.

Moore, M. 1992a. "Sri Lanka: A Special Case of Development". In: J. Brow and J. Weeramunda (eds.). *Agrarian Change in Sri Lanka.* London and New Delhi, Sage Publications, pp.17-40.

Moore, M. 1992b. "The Ideology History of the Sri Lankan "Peasantry"". In: J. Brow and J. Weeramunda (eds.). *Agrarian Change in Sri Lanka.* London and New Delhi, Sage Publications, pp.325-356.

Moore, M., Y. Rasanayagam and K.W. Tilakaratne. 1995. *Moneragala. Integrated Rural Development Programme (Sri Lanka): Mid Term Programme Review.* Report to NORAD (Norwegian Agency for Development Cooperation) and Ministry of Finance, Planning, Ethnic Affairs and National Integration, Government of Sri Lanka.

Morrison, B.M. 1980. "Rural Livelihood Strategies in a Sri Lankan Village", *The Journal of Development Studies* **16**(4):443-462.

Mosse, D. 2001. "'People's Knowledge', Participation and Patronage: Operations and Representations in Rural Development". In: B.Cooke and U. Kothari (eds.). *Participation: The New Tyranny.* London and New York, Zed Books, pp.16-35.

Mullen, J. 1995. "Introduction: Poverty Re-discovered". In: J. Mullen (ed.). *Rural Poverty Alleviation.* Averbury, Aldershot, pp.1-3.

Mundy, P.A. and J.L. Compton. 1995. "Indigenous Communication and Indigenous Knowledge". In: D.M. Warren, L. Jan Slikkerveer and D. Brokensha (eds.) *The Cultural Dimension of Development: Indigenous Knowledge Systems.* (IT Studies in Indigenous Knowledge and Development). Intermediate Technology Publications.

Murphy, J. 1990. "Farmers' Systems and Technological Change in Agriculture". In: M.S. Chaiken and A.K. Fleuret (eds.). *Social Change and Applied Anthropology: Essays in Honor of David W. Brokensha.* Colorado, Westview Press Inc. pp.17-30.

Murray, C. 2001. "Livelihoods Research: Some Conceptual and Methodological Issues". A Paper presented at the Development Studies Association Conference, *Different Poverties, Different Policies*, held September 10-12 2001, Institute for Development Policy and Management, University of Manchester.

Nader, L.1996. *Naked Science: Anthropological Inquiry into Boundaries, Power and Knowledge.* London, Routledge.

Nakamura, H., P. Rathnayake and S.M.P. Senanayake. 1997. "Agricultural Development: Past Trends and Policies". In: W.D. Lakshman (ed.). *Dilemmas of Development: Fifty Years of Economic Change in Sri Lanka.* Colombo, Sri Lanka Association of Economists, pp250-292.

Nakane, C. 1982. "The Effects of Cultural Tradition on Anthropologists". In: H. Fahim (ed.). *Indigenous Anthropology in Non-Western Countries: Proceedings of a Burg Wartenstein Symposium*. North Carolina, Carolina Academic, pp.52-60.

Narayan, K. 1993. "How Native is a "Native" Anthropologist?" *American Anthropologist*, **95**:671-685.

Nelson, N. 1979. *Why Has Development Neglected Rural Women?* Pergamon Press.

Nelson, N and Wright, S. (eds.).1995. *Power and Participatory Development: Theory and Practice*. London: Intermediate Technology Publications.

Nolan, R.2002. *Development Anthropology: Encounters in the Real World.* Boulder, Westview Press.

Nuberg, I.K., Evans, D.G. and R. Senanayake. 1994. "Future of Forest gardens in the Uvan Uplands of Sri Lanka". *Environmental Management* **18**(6):797-814.

Obeyesekere, G. 1967. *Land Tenure in Village Ceylon: A Sociological and Historical Study*. London, Cambridge University Press.

Obeyesekere, G. 1976. "The Impact of Ayurvedic Ideas of the Culture and the Individual in Sri Lanka". In: C. Lesely (ed.) *Asian Medical Systems: A Comparative Study*. Berkeley, University of California Press. pp.201-226.

Paulusz, J.H.O. 1989. *An Historical Relation of the Island Ceylon by Robert Knox* (second edition). Dehiwela, Tisara Prakasakayo Ltd.

Pearson, A.W.1983. "Team Building and Group Process Analysis in Interdisciplinary Research Teams". In: S.R.Epton, R.L.Payne and A.W.Pearson (eds.) *Managing Interdisciplinary Research.* John Wiley & Sons, pp.136-140.

Perera, A.H. and R.M.N. Rajapakse. 1991. "A Base-Line Study of Kandyan Forest Gardens of Sri Lanka – Structure, Composition and Utilization". *Forest Ecology and Management* **45**(1-4):269-280.

Perera, J. 1992. "Trends in Agrarian Change: Past and Present in Wewegama, A Village in the Mahawelli Development Project Area, Anuradhapura District". In: J. Brow and J. Weeramunda (eds.). *Agrarian Change in Sri Lanka*. London and New Delhi, Sage Publications, pp.95-129.

Petrie, H.G. 1976. "Do You See What I See? The Epistemology of Interdisciplinary Inquiry", *Journal of Aesthetic Etic.* **10**: 29-43.

Pieris, M.P. 1997. "Economic Growth and Structural-Institutional Change Since Independence". In: W.D. Lakshman (ed.). *Dilemmas of Development: Fifty Years of Economic Change in Sri Lanka*. Colombo, Sri Lanka Association of Economists, pp.28-54.

Pinstrupp-Anderson, P. 1982. *Agricultural Research and Technology in Economic Development.* London and New York, Longman.

Pottier, J. 1997. "Towards an Ethnography of Paricipatory Appraisals and Research". In: R. Grillo and R.L. Stirrat. (eds.). *Discourses of Development: Anthropological Perspectives.* New York and Oxford, Berg, pp. 204-227.

Pretty, J. 1999. "Capitals Assets and Natural Resource Improvements: linkages and New Challenges", Paper for *"Issues and Options in the design of Soil and Water Conservations Projects: A Workshop",* held 1st –3rd February, University of Wales, Bangor.

Pretty, J. and Ward, H. 2001. "Social Capital and the Environment", *World Development* **29** (2): 209-227.

Purcell. T.W. 1998. "Indigenous Knowledge and Applied Anthropology: Questions of Definition and Direction". *Human Organisation*, **57**(3):258-272.

Putnam, R.D. 1993. *Making Democracy Work: Civic Traditions in Modern Italy.* Princeton, N.J., Princeton University Press.

Ramuk.2000. "Rubber- All Set to Rebound"?. *The Sunday Times* (Sunday, August 27) p.2.

Redclift, M. (ed.).2000. *Sustainability: Life Chances and Livelihoods.* London and New York, Routledge.

Reginald, J.P. 1992. "Effects of Alternative and Conventional Farming Systems on Agricultural Sustainability". Papers delivered at the *11th Meeting of the Technical Advisory Committee of the Food and Fertilizer technology Centre for the Asian and Pacific Region.* Food and Fertiliser Technology Centre for the Asian and Pacific Region, pp.1-5.

Rew, A. 1985. "The Organisational Connection: Multi-Disciplinary practice and Anthropological Theory". In: R. Grillo and A. Rew (eds.). *Social Anthropology and Development Policy.* London and New York, Tavistock Publications. pp.185-197.

Rew, A. 1997. "The Donor's Discourse: Official Social Development Knowledge". In: R. Grillo and R.L. Stirrat. (eds.). *Discourses of Development: Anthropological Perspectives.* New York and Oxford, Berg, pp. 81-106.

Rhoades, R.E., Horton, D.E. and R.H. Booth. 1986. "Anthropologists, Biological Scientists and Economist: The Three Musketeers or Three Stooges of Farming Systems Research?" In: J.R. Jones and B.J. Wallace. *Social Sciences and FSR: Methodological Perspectives on Agricultural Development.* Boulder, Westview Press. pp. 21-40.

Richards, P and W. Gooneratne. 1980. *Basic Needs, Poverty and Government Policies in Sri Lanka.* Geneva, International Labour Office.

Richards, P. 1985. *Indigenous Agricultural Revolution – Ecology and Food Production in West Africa.* London, Hutchinson & Co Ltd.

Robinson, M.S. 1975. *Political Structure in a Changing Sinhalese Village.* Cambridge, Cambridge University Press.

Rodrigo, V.H.L. and Stirling, C.M. 1997. *Effects of Population density on Seasonal Light and water Use of Banana-Based Interculture Systems.* Report for the Institute of Terrestrial Ecology, Bangor.

Rouse, J. 1987. *Knowledge and Power – Toward a Political Philosophy of Science.* Ithaca, Cornell University Press.

Sahlins, M. D. 1974. *Stone Age Economics.* London, Tavistock Publications.

Samrasinghe, S.W.R. de A. 1977. *Agriculture in the Peasant Sector of Sri Lanka.* Peradiniya, Ceylon Studies Seminar.

Sands, R.G. 19930. "Can You Overlap Here?": A Question for an Interdisciplinary Team", *Discourse Processes* **16**: 545-564.

Sathananathan, S. 1991. "Rural Development Policy in Sri Lanka, 1935 to 1989", *Journal of Contemporary Asia*, **21**(4):433-454.

Scherr, S.J. 2000. "A Downward Spiral? Research Evidence on the Relationship between Poverty and Natural resource Degradation", *Food Policy*, **25**: 479-498.

Schönhuth, M. 2002. "Negotiating with Knowledge at Development Interfaces – Anthropology and the Quest for Participation". In: P. Sillitoe, A. Bicker and J. Pottier (eds.). *Participating in Development: Approaches to Indigenous Knowledge.* ASA Monographs, pp.139-161.

Sefa Dei, G.J., B. Hall and D.G. Rosenberg (eds.). 2000. *Indigenous Knowledges in Global Contexts: Multiple Readings of our World.* Toronto, University of Toronto Press.

Sen, A. 1992. *Inequality Reexamined.* Oxford, Oxford University Press.

Shah, P. 1995. "Farmers as Analysts, Facilitators and Decision-Makers". In: Nelson, N and S. Wright (eds.). *Power and Participatory Development: Theory and Practice.* London: Intermediate Technology Publications. pp.83-94.

Shore, C. and S. Wright (eds.).1997. *Anthropology of Policy: Critical Perspectives on Governance and Power.* London and New York, Routledge.

Sillitoe, P. 1998a. "Knowing the Land: Soil and Land Resource Evaluation and Indigenous Knowledge", *Soil Use and Management* **14**:188-193.

Sillitoe, P.1998b. "The Development of Indigenous Knowledge: A New Applied Anthropology", *Current Anthropology*, **39**(2):223-252.

Sillitoe, P. 2000a. *Social Change in Melanesia: Development and History.* Cambridge, Cambridge University Press.

Sillitoe, P. 2000b. "The State of Indigenous Knowledge in Bangladesh". In: P. Sillitoe (ed.). *Indigenous Knowledge Development in Bangladesh: Present and Future.* London, Intermediate Technology Publications, pp.3-22.

Sillitoe, P. 2000c. "Cultivating Indigenous Knowledge on Bangladesh Soil: An Essay in Definition". In: P. Sillitoe (ed.). *Indigenous Knowledge Development in Bangladesh: Present and Future.* London, Intermediate Technology Publications, pp.145-160.

Sillitoe, P. 2002. "Participant Observation to Participatory Development – Making Anthropology Work". In: P. Sillitoe, A. Bicker and J. Pottier. (eds.). *Participating in Development: Approaches to Indigenous Knowledge.* ASA Monographs, pp.1-23.

Simmel, G. 1987. "Domination and Freedom (1950)". In: S. Lukes (ed.) *Power.* Basil Blackwell, pp.203-210.

Simpson, B. 1997."Possession, Dispossession and the Social Distribution of Knowledge Among Sri Lankan Ritual Specialists", *The Journal of the Royal Anthropological Institute* (N.S.), **3**(1):43-59.

Smart, B. 1985. *Michel Foucault.* Milton Keynes, The Open University.

Southwold, M. 1983. *Buddhism in Life: The Anthropological Study of Religion – The Sinhalese Practice of Buddhism.* Manchester, Manchester University Press.

Spencer, J. (ed.).1990. *Sri Lanka-History and the Roots of Conflict.* London and New York, Routledge.

Stewert, F. 1985. *Planning to Meet Basic Needs.* London, The MacMillan Press Ltd.

Stirling, C.M., H.L.Rodrigo, F.L.Sinclair, T.M.S.P.K. Thennakoon and A.M.W.K. Sennivirathna. No Date. *Incorporating Local and Scientific Knowledge in Adoption of Intercropping Practices for Smallholder Rubber Lands.* Final Report.

Stirling, C.M. 1999. *PRA Techniques for the Village of Mediriya.* Unpublished (handouts).

Stirrat, R.L. 2000. "Cultures of Consultancy". *Critique of Anthropology*, **20**(1): 31-46.

Stoll-Kleeman, S. and O'Riordan, T. 2002. "From Participation to Partnership in Biodiversity Protection: Experience from Germany and South Africa", *Society and Natural Resources* **15**:161-177.

Swanson, E.R. 1979. "Working with Other Disciplines", *American Journal of Agr. Econ.* (December): 849-859.

Tambiah, S.T. 1992. *Buddhism Betrayed? Religion, Politics, and Violence in Sri Lanka*. Chigaco and London, The University of Chicago Press.

Tedlock, B. 1991. "From Participant Observation to the Observation of Participation: The Emergence of Narrative Ethnography", *Journal of Anthropological Research*, **47**(1): 69-83.

Thompson, C. 1998. "Health and Population". In: D. Carney (ed.). "DFID – Sustainable Rural Livelihoods. What Contribution Can We Make?" Papers presented at the *Department for International Developments' Natural Resources Advisers Conference* (July). Department for International Development. p203.

Thrupp, L.A.1989. "Legitimising Local Knowledge: From Displacement to Empowerment for Third World People". *Agriculture & Human Values*, **6**(13): 13-24.

Townsend, J. 1995. "Who Speaks For Whom? Outsiders Re-Present Women Pioneers of the Forests of Mexico". In: N. Nelson and S. Wright (eds.). *Power and Participatory Development: Theory and Practice*. London: Intermediate Technology Publications. pp. 95-105.

Turner, A. 2000. "Embodied Ethnography. Doing Culture", *Social Anthropology*, **8**(1): 51-60.

Twigg, J. and Bhatt, M.R. (eds.)1998. *Understanding Vulnerability: South Asian Perspectives*. London, Intermediate Technology Publications.

UNDP.1998. *National Human Development Report- Sri Lanka*. Colombo: United Nations Development Programme.

Upawansa, G.K. and R. Wagachchi. 1999. "Activating All Powers in Sri Lanka Agriculture". In: B. Haverkort and W. Hiemstra (eds.). *Food for Thought: Ancient Visions and New Experiments of Rural People* (Compas). London: Zed Books, pp105-122.

Uphoff, N. 1996. *Learning from Gal Oya – Possibilities for Participatory Development and Post Newtonian Social Science*. London, Intermediate Technology Publications.

Vitebsky, P.1992. "Shifting Cultivation Comes to rest: Changing Values of Land and the person in an Area of Moneragala District". In: J. Brow and J. Weeramunda (eds.). *Agrarian Change in Sri Lanka*. London and New Delhi, Sage Publications, pp.155-187.

Vitebsky, P. 1993. "Is Death the Same Everywhere? Contexts of Knowing and Doubting". In: M. Hobart (ed) *An Anthropological Critique of Development: the Growth of Ignorance*. London, Routledge, pp.100-115.

Wagachchi, H.R. and K.F. Wiersum. 1997. "Water Management in Agroforestry Systems: Integrated Buffalo Ponds and Forest Gardens in the Badulla District, Sri Lanka". *Agroforestry Systems* **35**(3):291-302.

Wallman, S. (ed.).1977. *Perceptions of Development.* Cambridge, Cambridge University Press.

Wanigasundara, M. 1995. *The MONDEP Decade: A Document on the Integrated Rural Development programme, Moneragala*. MONDEP.

Warren, D.M., L. Jan Slikkerveer and D. Brokensha (eds.) 1995. *The Cultural Dimension of Development: Indigenous Knowledge Systems*. (IT Studies in Indigenous Knowledge and Development). London, Intermediate Technology Publications.

Weber, M. 1987. "Domination by Economic Power and by Authority". In: S. Lukes (ed.). *Power.* Basil Blackwell, pp.28-36.

Weeratunge, N. 2000. "Nature, Harmony, and the *Kaliyugaya*", *Current Anthropology* **41**(2): 249-268.

Wickham, T.W. 1993. *Farmers Ain't No Fools. Exploring the Role of Participatory Rural Appraisal to Access Indigenous Knowledge and Enhance Sustainable Development, Research and Planning*. UMI Dissertation Services.

Wilbanks, T. 1986. "Communication between Hard and Soft Sciences". In: D.E. Chubin, A.L. Porter, F.A. Rossini and T. Connolly (eds.) *Interdisciplinary Analysis and Research and Practice of Problem-Focussed Research and Development.* Edinburgh, Lomond. pp.131-141.

Williams, G. 1999. "Assessing Poverty and Poverty Alleviation: Evidence from West Bengal", *Trans Inst Br Geogr NS*, **24**:193-212.

Woost, M.D. 1990. "Rural Awakenings: Grass roots Development and the Cultivation of a National Past in Rural Sri Lanka". In: J. Spencer (ed) *Sri Lanka: History and the Roots of Conflict*. London and New York, Routledge, pp.164-183.

Woost, M.D. 1993. "Nationalising the Local past in Sri Lanka: Histories of Nation and Development in a Sinhalese Village", *American Ethnologist* **20**(3): 502-521.

Woost, M.D. 1997. "Alternative Vocabularies of Development? "Community" and "Participation in Development Discourse in Sri Lanka". In: R.D.Grillo and R.L. Stirrat (eds.). *Discourses of Development: Anthropological Perspectives*. New York and Oxford, Berg. pp.229-253.

Walman, S. (ed.) 1977. *Perceptions of Development*. Cambridge University Press.

Weber, M. 1987. "Domination by Economic Power and by Authority (1978)". In: S. Lukes (ed.). *Power*. Basil Blackwell, pp.28-36.

Weeratunge, N. 2000. "Nature, Harmony, and the *Kaliyugaya*". *Current Anthropology*, **41**(2):249-268.

Wickham, T.W. 1993. *Farmers ain't No Fools: Exploring the Role of Participatory Rural Appraisal to Access Indigenous Knowledge and Enhancde Sustainable Development, research and Planning*. UMI Dissertation Services.

Wilbanks,T.1986. "Communication Between Hard and Soft Sciences". In: Chubin, D.E., A.L.Porter, F.A.Rossini and T.Connolly (eds.). *Interdisciplinary Analysis and Research : Theory and Practice of Problem-Focussed Research and Development*. Lomond. pp.131-141.

Woost, M.D.1997. "Alternative Vocalbularies of Development? "Community" and "Participation" in Development Discourse". In: R. Grillo and R.L. Stirrat. (eds.). *Discourses of Development: Anthropological Perspectives*. New York and Oxford, Berg, pp.229-253.

Wright, S. 1995. "Anthropology: Still the Uncomfortable Discipline?". In: A. Ahmed and C. Shore (ed.). *The Future of Anthropology: It's Relevance to the Contemporary World*. London and Atlantic Highlands, Athlone, pp.65-93.